BIBLIOGRAPHICAL NOTICES.

Art. XVI.—*Reports of American Hospitals for the Insane:*—

1. *Of the Maine Insane Hospital, for the fiscal year* 1865–66.
2. *Of the Vermont Asylum, for the fiscal year* 1865–66.
3. *Of the State Hospital at Taunton, Mass., for the fiscal year* 1865–66.
4. *Of the Pennsylvania State Hospital, for the year* 1866.
5. *Of the Maryland Hospital, for the years* 1865 *and* 1866.
6. *Of the Asylum of North Carolina, for the fiscal years* 1864–65, *and* 1865–66.
7. *Of the Central Ohio Asylum, for the fiscal year* 1865–66.
8. *Of the Indiana Hospital, for the fiscal year* 1865–66.
9. *Of the Michigan Asylum, for the fiscal years* 1862–63, *and* 1863–64.
10. *Of the Wisconsin State Hospital, for the fiscal year* 1865–66.

1. The new wing added to the *Maine Insane Hospital*, in 1865, was finished, internally, and occupied in 1866. The female department is thus considerably enlarged. According to the report now before us, "every dormitory in the male wards is occupied, and has been for the last four or five years, so that we have been obliged to refuse, for a time, more or less applicants every year. We actually need another wing for males more than ever before."

	Men.	Women.	Total.
Patients in the hospital Dec. 1, 1865, . .	143	134	277
Admitted in the course of the year, . .	75	60	135
Whole number, ...	218	194	412
Discharged, including deaths, . . .	85	51	136
Remaining Dec. 31, 1866, ...	133	143	276
Of those discharged, there were cured, .	39	22	61
Died, ...	18	15	33

Died of consumption, 10; diarrhœa, 5; old age, 4; congestion of the brain, 3; paresis, 3; epilepsy, 4; exhaustive mania, 1; dropsy, 1; suicide, 2.

"Every year we spend with those of minds diseased," remarks Dr. Harlow, "leads us more fully to the conviction that greater care and watchfulness over the physical part of our nature would lessen surprisingly the number who annually fall victims to this worst of human ills. The rules of hygiene are so wofully neglected and disregarded by all classes and in all conditions of men, that it is no marvel to see the vast number of wrecks afloat on all sides.

"The conventionalities of society are but stepping-stones over which the young scramble to find themselves too soon in some institution for the insane, or at the brink of an early grave."

A large part of the report is occupied by an essay upon suicide, which contains nothing of particular importance that is new.

2. The report of Dr. Rockwell, of the *Vermont Asylum*, for the official year ending July 31, 1866, is, like all its predecessors, very short. We take from it a few extracts:—

	Men.	Women.	Total.
Patients at the beginning of the year, . .	241	239	480
Admitted in the course of the year, . .	77	84	161
Whole number, ...	318	323	641
Discharged, including deaths, . . .	77	71	148
Remaining at the end of the year, . .	241	252	493
Of those discharged, there were cured, ...			58
Died, ...			43

"The comfort and welfare of the patients are greatly affected by the character of those under whom they are immediately placed. If the attendants are of a benevolent and obliging disposition, industrious in their habits, mild, yet decisive in their manners, and possessing a favourable and pleasant tact to perform their several duties, they will greatly relieve the labours of the physician, and promote the recovery of the patients. Those who are mild, amiable, and courteous, will impart the same feelings to those around them; while those who are morose and irritable will create a gloomy and unpleasant atmosphere to all with whom they come in contact.

"One of the most important means for the restoration of the insane is to inspire them with self-respect and self-control. The kindness, tact, and skill for the accomplishment of this, is a great desideratum in the moral management of the insane. Reading and writing are considered valuable auxiliaries for the comfort and restoration of the insane. The patients are furnished with stationery, and are encouraged to write on all subjects except that of their insanity. The practice of writing improves the power of fixing the attention, and tends to restore the lost balance by diverting the mind from its delusions, and calling into exercise those faculties that would otherwise lie dormant. Even when they write on the subject of their delusions, they disclose the nature of their insanity more clearly than could be learned in any other way."

3. The medical history of the *State Lunatic Hospital* at Taunton, Mass., for the official year ending with the 30th of September, 1866, furnishes the following numerical results:—

	Men.	Women.	Total.
Patients in hospital Sept. 30, 1865, . .	165	178	343
Admitted in course of the year, . . .	109	99	208
Whole number, ...	274	277	551
Discharged, including deaths, . . .	111	99	210
Remaining, Sept. 30, 1866, . . .	163	178	341
Of those discharged, there were cured, .	39	39	78
Died, ...	23	17	40

Causes of death.—General paralysis, 8; maniacal exhaustion, 6; apoplexy, 5; phthisis, 3; old age, 3; diarrhœa, 2; marasmus, 2; epilepsy, 2; inanition, 2; paralysis, dysentery, disease of the heart, disease of liver, suicide, and cancer, 1 each.

Dr. CHOATE writes as follows in relation to the liability to recurrence of insanity, in cases once restored: "While it is true that its occurrence once in an individual indicates, in many cases, a constitution which makes him more liable in the future than one who has never been attacked—and while there are a few who, though apparently perfectly rational after the termination of their disorder, are incapable of returning to the sphere which they formerly occupied, or of performing the duties which they previously fulfilled, yet the large majority of those recovered continue well, and are as perfect and capable, in all respects, as before their disease. To show how small is the probability of recurrence, and how much the danger of it has been overrated, I have compiled from our records the following statement of the number of times each patient has been admitted:—

2488	patients have been admitted *once*, ...	2488
86	" " " *twice*, ...	172
35	" " " *three times*, . . .	105
13	" " " *four* " . . .	52
3	" " " *five* " . . .	15
2	" " " *six* " . . .	12
1	" " " *eight* " . . .	8
2628	*persons.* *admissions,*	2852

"It is not pretended that this statement shows accurately the number of relapses; but it must be remembered that it includes many who are removed by friends before recovery, and were necessarily returned. On the whole it seems probable that it puts fully as unfavourable an aspect upon the security of the restored insane as the facts would warrant."

The Doctor thus gives his views of the effect of the late war in the production of insanity:—

"At the commencement of the late rebellion, contrary to common expectation, there was an immediate and general check to the numbers thronging to all public institutions, and to insane hospitals among the rest. This continued throughout the war: but with its cessation there has been here, and probably at other similar institutions, an immediate though gradual increase. A few, but not many patients, have been admitted, in whom the mental disease might fairly be attributed to their connection with the great contest. Eleven of those admitted during the year had served in the armies of the Republic. On the whole, it seems probable that the general effect of the national trial has been healthful to the public mind, and that although some new causes of mental disease have been introduced, yet the percentage of insanity has been slightly reduced."

4. At the *Pennsylvania State Hospital*, during the year 1866, the number of patients constantly exceeded the limit which was originally fixed for the building. As a remedy for this tendency to overcrowding, Dr. Curwen very wisely recommends the erection of another hospital, instead of enlarging this to unwieldy dimensions. His reasons for this course are thus stated:—

"The opinions of the ablest and most experienced gentlemen, who have devoted most time to the study of mental disorders, are most decidedly opposed to the erection of hospitals to accommodate a larger number than this is calculated to receive. No man, no matter how great his ability, can give proper, careful, and thorough attention to a larger number, and also perform, as he should, all the other duties which require his personal care. To secure the best results, the superintending physician must personally study the different cases, and make himself familiar with them; and to do this, maintain the proper discipline of the establishment, and faithfully discharge all the duties assigned him, will fully tax the energies and resources of the best man; and every additional patient only detracts so much from his ability rightly to discharge his duties; and in justice to himself and to those intrusted to his care, these duties cannot be delegated to others. He should see with his own eyes and hear with his own ears, that thus he may take advantage of everything which may most tend to benefit those intrusted to his care."

He advises, however, that a room for an infirmary be erected in connection with each ward of the present hospital. This is an excellent proposition, and the proposed rooms would be a great improvement.

On the supposition that a new hospital shall be erected, the Doctor gives the following injunctions, a due regard to which would be the part of a wise economy. In the hospitals of the United States, hundreds of thousands of dollars have been expended in correcting the errors and supplying the deficiencies of ignorant architects and master-builders:—

"The edifice itself should be constructed in the most careful manner, in strict accordance with the requirements of the class to be accommodated, and in the light of the ample knowledge obtained on this subject within the last ten or fifteen years, under the direct superintendence of a well qualified medical man, who has had previous experience in a hospital for the insane, and who may be able to conduct it after it is ready for occupation. In this way much expense may be saved in the construction and arrangement of matters of vital importance to the proper management of the hospital. but which cannot be known to an architect or builder, who has had no opportunity of giving special attention to such matters. Every one desiring to have any work done in the best manner, will select for it the most careful and competent workman he can find; and so in this matter of hospital building, the man best acquainted with the requirements of a hospital for the insane, should prepare the plans, direct its erection, and be responsible for the proper arrangement of all its parts."

	Men.	Women.	Total.
Patients in hospital Jan. 1, 1866,	157	149	306
Admitted in course of the year,	115	72	187
Whole number,	272	221	493
Discharged, including deaths,	91	75	166
Remaining Dec. 31, 1866,	181	146	327
Of those discharged, there were cured,	26	21	47
Died,	14	19	33

Causes of death.—Exhaustion of acute mania, 9; exhaustion of chronic mania, 13; suicide, 1; congestion of the lungs, 2; phthisis pulmonalis, 2; disease of the heart, 2; asphyxia, 1; disease of the brain, inducing paralysis, 3.

5. The general statistics of the *Maryland Hospital*, for the years 1865 and 1866, are as follows:—

	Men.	Women.	Total.
In hospital Jan. 1, 1865,	63	57	120
Admitted in 1865, including 65 cases of mania-a-potu,	108	25	133
Admitted in 1866, including 51 cases of mania-a-potu,	94	27	121
Whole number in the two years,	265	109	374
Discharged, including deaths, in 1865,	102	29	131
Discharged, including deaths, in 1866,	102	40	142
Whole number discharged,	204	69	273
Remaining Dec. 31, 1866,	61	40	101
Cured in 1865, including 59 of mania-a-potu,	76	11	86
Cured in 1866, including 52 of mania-a-potu,	67	10	77
Died in 1865, including 2 men with mania-a-potu,	9	2	11
Died in 1866, including 1 case of mania-a-potu,	6	3	9

"There has not been," says Dr. Fonerden, "at any time in the last twenty years, a prevalent febrile, contagious, or inflammatory disease in the hospital. The physical health of the older inmates in the last two years, excepting those with whom it was broken down when they were admitted, or became so after a slow process of deterioration in the vital functions, has been, in general, good.

"The same course of moral, medicinal, and hygienic management which has been heretofore pursued, with the addition of such advantages as longer experience has contributed, remains in daily operation; and a continued supervision is exercised over the details in the proceedings of the household, to promote its welfare, mentally and physically.

"Among the improvements which have of late years been made, none has surpassed in value the introduction of the new heating apparatus by means of the circulation of hot water in pipes, permanently arranged throughout the main building."

6. The general numerical results at the *Insane Asylum of North Carolina*, for the two official years, the latter of which ended with the end of October, 1866, are as follows:—

	Men.	Women.	Total.
Patients in hospital, Nov. 1, 1864,	96	84	180
Admitted in two years,	61	46	107
Whole number,	157	130	287
Discharged, including deaths,	75	46	121
Remaining, Nov. 1, 1866,	82	83[1]	165
Of those discharged, there were cured,	15	7	22
Died,	32	27	59

Of the patients admitted, the mental disease of one is attributed to the "John Brown raid," and of seventeen to "the war."

"Of the admissions during the year, eleven were of ten years' duration;

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[1] As in the report.

seventeen were of five years' duration; nine were of two years' duration; eight were of one year's duration; five unknown; fifteen were of less than one year—making a total of fifty whose ascertained and unknown duration is more than one year. Seventy-four per cent. of chronic cases of total admissions, from which it appears that the Institution continues to be, as it always has been, the recipient of a large number of unfavourable cases, and of persons whose physical systems and energies have become greatly enervated, if not materially exhausted, by mental and bodily ailments.

"A reply to the inquiry why such a large number of chronic cases were sent to the Institution in the past year, may be found partly in the impoverished condition of the families to which many of them belong, and who find themselves unable to take farther care of them, and partly in others having overcome a groundless prejudice against such Institutions, as well as a false sense of apprehended disgrace on the part of relatives and friends, from placing their unfortunate ones in institutions of the kind.

"Since it has been made known to the authorities of the Freedmen's Bureau of a readiness on the part of the Board of Supervisors to admit coloured insane into the Institution, a number of applications for patients of that class have been made, but which have been rejected for the want of apartments."

Dr. Fisher's report is mostly devoted to the material and financial interests of the hospital.

7. Very extensive repairs and improvements of the buildings of the *Central Ohio Lunatic Asylum* were made in the course of the official year ending with the 31st of October, 1866. An "Infirmary for infectious diseases—a plain, substantial brick building, conveniently arranged for both sexes, and well ventilated, is rapidly approaching completion."

	Men.	Women.	Total.
Patients in hospital Nov. 1, 1865,	134	145	279
Admitted in course of the year,	82	105	187
Whole number,	216	250	466
Discharged, including deaths,	79	87	166
Remaining Nov. 1, 1866,	137	163	300
Of those discharged, there were cured,	51	58	109
Died,	9	11	20

Causes of death.—Acute maniacal exhaustion, 8; exhaustion and general decay, 3; organic lesions of the brain, 2; marasmus, 2; consumption, inflammation of the lungs, inanition, dropsy, and peritonitis, 1 each.

"We have had no epidemic influence with which to contend, and hence the moderate list of the deceased."

The large proportion of cures is accounted for by the fact, that in the admission of patients, preference is given to recent cases.

"Of the many new remedies," says Dr. Peck, "that are attracting attention at the present time, I can speak favourably of the following: The tincture of digitalis is a valuable medicine in the treatment of paroxysmal insanity, attended with a high degree of excitement. It has been used quite extensively during the past year in this Institution, with very decided and satisfactory results, and not a single *unpleasant symptom* has occurred from its use in any case. The dose we vary from twenty drops to two drachms of the officinal tincture. My experience in the use of this remedy leads me to state that, to obtain desirable results, it should be given in rather large doses.

"Another remedy of value I find in the bromide of potassium. It is indicated in nervous disorder, accompanied with spasmodic phenomena. Its use in this Asylum is becoming more and more extended daily; but the class of patients for whom it seems of the most uniform value is the young of both sexes, whose mental alienation has been caused by disorder of the organs of generation.

"The permanganate of potassa is a medicine of considerable value in the treatment of gastric disorder. Cases of melancholia are very frequently attended with troublesome dyspeptic symptoms. In cases of this kind this remedy is usually of real service."

The tincture of digitalis can hardly be called a "new remedy" in the treatment of insanity. Twenty-five years ago there was, perhaps, no one medicine which was more extensively used in the hospital for the insane with which we were at that time connected, than this same tincture.

8. At the *Indiana Hospital for the Insane*, for the last ten years, the demand for accommodations has far exceeded the supply. In the course of the official year ending October 31, 1866, the number of rejected applicants was seventy-eight. There is now some prospect that the building will be enlarged.

	Men.	Women.	Total.
Patients in hospital Oct. 31, 1865, . .	127	135	262
Admitted in course of the year . . .	133	108	241
Whole number, ...	260	243	503
Discharged, including deaths, . . .	127	103	230
Remaining Oct. 31, 1866, ...	133	140	273
Of the discharged, there were cured, . .	69	54	123
Died, ...	15	9	24

Causes of death.—Exhaustion from acute mania, 10; exhaustion from chronic mania, 3; puerperal mania, 1; marasmus, 5; general paralysis, 2; convulsions, 2; suicide, by strangulation, 1.

The hospital is so far from being adequate to the treatment of all the patients for whom admission is requested, that, during the past year, all chronic cases were rejected, and recent ones alone received. Hence the number of curables was largely augmented, and, as a natural consequence, the percentage of cures very considerably increased beyond that of the general average of hospitals for the insane.

"The ill-health," says Dr. Lockhart, "so often recorded on admitting patients to the hospital, is too often continuous. Indigestion and anæmia, with our insane, are general, if not quite universal. Hereditary and climatic (malarious) influences; ignorance of, or disregard for the laws of health—as the use of improper food, or the abuse of articles in themselves wholesome; excessive toil, or the want of exercise; intemperance, with its long catalogue of ills, physical, moral, mental; and *loss of sleep*, whether from domestic affliction or discord; a restless desire for gain, or the multitudinous excesses and indulgences of the young and the vicious, seeking for pleasure where it never has been found; or from whatever other cause 'nature's sweet restorer, balmy sleep,' is wanting—these all play their part in making up the sum total of diseased bodies and diseased brains. No cases, however, are so lamentable as those of the young, who have exhausted body and mind in rounds of senseless pleasure—the late, highly seasoned, needless suppers—the convivial glass, the white-heat of excitement at the play and the gaming-table; the midnight revel; the feverish, salacious dreams, and yet more salacious indulgences, until at last life is exhaled, and the miserable wretch lingers for a few months in an asylum, *demented*, and death closes the scene."

9. By the report of the *Michigan Asylum for the Insane*, for the two official years next preceding the 1st of December, 1864, it appears that in the course of those two years the central edifice of that Institution was completed and occupied.

	Men.	Women.	Total.
Patients in hospital Nov. 30, 1862, . .	58	97	155
Admitted in the course of two years, . .	72	73	145
Whole number, ...	130	170	300
Discharged, including deaths, . . .	55	81	136
Remaining Nov. 30, 1864, ...	75	89	164
Of those discharged, there were cured, .	28	30	58
Died, ...	5	11	16

Dr. Van Deusen, in this report, exhibits, in various ways, the importance of completing the building according to its original design, in order to meet the wants of the people of the State. In respect to moral treatment, he says:—

"In addition to the means previously in use for the physical and mental recreation and diversion of our household, there has been added, since the issue of our last report, a valuable stereopticon, with an oxyhydrogen light, manufactured by Queen & Co., of Philadelphia, and a large collection of choice slides. This apparatus will continue to furnish, at a small additional yearly expense, a source of most elegant and refined entertainment. One exhibition, of two hours' length, was attended by nearly all the patients from one of the most disturbed wards; and a quieter, or more pleased attendance could not have been secured anywhere.

"We have also provided for each of the convalescent halls, *pigeon-hole boards*, which have been in such constant use, and have afforded so much pleasure, that we shall endeavour to introduce them elsewhere.

"A very pleasant incident in the history of the past year was a reunion of recovered patients, during the holidays. Nearly every available space in the house being already occupied, the number of invitations extended was necessarily very limited, but the occasion was one long to be remembered."

10. At the *Wisconsin State Hospital for the Insane*, as appears by the report of that Institution for the year ending September 30, 1866, an enlargement of the building is in progress, by which the accommodations for patients will be doubled.

	Men.	Women.	Total.
Patients at the beginning of the year,	89	88	177
Admitted in the course of the year,	57	38	95
Whole number,	146	126	272
Discharged, including deaths,	50	42	92
Remaining at the end of the year,	96	84	180
Of those discharged, there were cured,			42
Died,			7

Deaths from exhaustion, 4; diabetes, 1; general paralysis, 2.

Dr. Van Norstrand thus presents his views in regard to manual labour, as adapted to the treatment of the insane:—

"A patient under recent excitement should not labour, but when convalescence has commenced, if in tolerable physical condition, he should commence light labour, and gradually increase it to a moderate amount, always considering his physical condition. All chronic cases, if not physically disabled, are improved by out-door exercise or labour—appetite and sleep are better; they are more manageable and docile, less filthy in their habits, much more agreeable generally, always improving physically, and many times mentally, to a certain extent. The labour should be agricultural, the simpler the better, and not exhaustive. Mechanical shop-labour I should rather avoid; the patient is more excluded from fresh air, the life-giving influence of sunlight—is more exhaustive to the mental energies, has more opportunity to injure himself or others with tools, and may secrete them in his clothes, and allow other patients who are suicidal or homicidal to use them. For these reasons, together with the fact that an insane man learns a new pursuit with much difficulty, I have been inclined to provide all the patients, who felt disposed to labour, with agricultural or horticultural employment, unless they manifested much aptitude for some other pursuit. Females, of course, have not worked out of doors, except in the flower-garden, their labour being done mostly in the sewing-room, wards, dining-rooms, kitchen, laundry, ironing-rooms, &c."

It appears that the farm is made a valuable appendage to this hospital.

P. E.

ART. XVII.—*Guy's Hospital Reports.* Edited by C. HILTON FAGGE, M. D., and ARTHUR E. DURHAM. Third series, vol. xii. London: John Churchill & Sons, 1866. 8vo. pp. 683.

THE present volume of this valuable publication contains twenty-five original contributions, eleven plates and a number of wood-cuts. As has been our practice, we shall lay before our readers a full analysis of its contents:—

I. *On Hydrophobia.* By J. COOPER FORSTER.

In this paper the histories of seven cases of hydrophobia are related which, with six cases mentioned by Dr. Bright in his work entitled *Medical Reports*, as having been admitted into Guy's Hospital in the decade from 1820 to 1830, lead to some interesting observations concerning this strange disease.

The first point is the question, How long after the bite may hydrophobia occur? In the thirteen cases, the shortest time that elapsed was four weeks, and the longest—in one case only—five to seven years; the other eleven all took place at various periods within eleven months. Here we have the results of a poison apparently more tardy in its action than any other to the action of which the human body is subject. Moreover, when the disease appeared early, the bitten part was situated in the most vascular and sensitive region of the body, where the circulation is most active, and where absorption might naturally be expected to take place most rapidly. When clothing has intervened, a long time, even some years, may elapse before the disease occurs.

Some may be disposed to think that when hydrophobia appears several years after the occurrence of a bite, it can scarcely be considered to be owing to the wound then inflicted. The only solution of the difficulty is that hydrophobia may occur spontaneously, which Mr. Forster cannot adopt.

By some writers a change is said to occur in the original wound previous to the appearance of the hydrophobic symptoms. Indeed, in the article on Hydrophobia by Messrs. Gamgee, in Reynolds's *System of Medicine*, the wound is said to "become intensely painful." "If the wound have cicatrized, the cicatrix becomes red and irritable; or if, as is generally the case when the injuries inflicted by the rabid animal have been severe, it has not healed, it assumes an unhealthy appearance." In none of the cases detailed by Mr. Forster was there the slightest alteration in the wounds. In those of Dr. Bright it is stated, in one case, "that the scar of the bite was evidently inflamed."

That there has sometimes been great pain in the course of the nerves leading from the injured part there is no doubt. Indeed, this appears to be one of the most marked symptoms of the onset of the disease, and one which first attracts attention. This pain is along the course of the nerves, and not along the track of the absorbents, as there is no enlargement of the glands or lymphatics at all indicative of any irritation.

The characteristic difficulty in swallowing is not a dread of fluid, but an inability to perform the act of swallowing when the liquid is taken into the mouth. In all the cases the patient took the glass, or mug, or spoon, and earnestly wished to swallow the liquid, but found it impossible, apparently owing to an irregular contraction of the muscles of the pharynx. It is Mr. Forster's belief that this peculiar inability to swallow, and the excessive pain leading from the wound are symptoms sufficient to characterize hydrophobia without any other.

Upon a careful examination of all the post-mortem appearances related, there seems to be no special organ that claims particular attention. An enlarged condition of the pharynx, which is now generally admitted to be dilated in this disease, is noticed, but whether this condition is cause or effect appears very difficult to decide.

As regards the treatment of hydrophobia, there is nothing in these cases to afford a shadow of encouragement to hope for success from any known means whatever. Excision of the bitten parts, which some consider as a tolerably certain means of preventing hydrophobia, Mr. Forster pronounces to be vain. In the only case he reports where it was practised, the disease appeared in four weeks. "Excision or non-excision is alike in vain; sooner or later the disease appears!" Nothing, so far as we know at present, can prevent it.

II. *The Teeth, as Passive Organs of Speech.* By S. James A. Salter, M.B., F.R.S.

Articular sounds are essentially produced by the passage of air through the oral canal. By the soft palate, the front teeth and the gums just behind them, and the lips, certain characters are impressed upon the air passing through them. In this paper is considered the effect produced upon the air by the teeth. The principal way in which the teeth assist in the production of articular sounds is by acting as an arch, or horseshoe-shaped ridge, within which and against which the tongue may act as a valve, and by pressing against which it may produce modified and variously placed partial or complete closure. Mr. Salter analyzes particularly and in order the way in which all the dental sounds are formed. Now the loss or injury of any of the passive organs of speech produces a corresponding defect in the articulation of the sufferer; and if the teeth are the organs effected, then the dental sounds are interrupted or interfered with. This is always most manifest immediately after the loss has taken place, for by degrees this loss is compensated for, to a certain extent, by the adaptation of the soft parts, and the cultivated skill of the speaker.

III. *On the Application of Physiological Tests for Certain Organic Poisons, and especially Digitaline.* By C. Hilton Fagge, M. D., and Thomas Stevenson, M. D.

In this long paper are furnished the details of a number of experimental investigations made for the purpose of determining whether digitaline can, with certainty, be detected by its effects upon the lower animals, but the conclusions, to our minds at least, are by no means very satisfactory.

IV. *Observations on the Pathology of some of the Diseases of the Nervous System.* By Samuel Wilks, M. D.

The object of this paper is to endeavour to find some scientific basis for a classification of nervous diseases, so that the organic affections, at least, might be arranged on a definite principle. A physiological method of classification of cerebral affections is certainly better than one strictly pathological, but the discovery of the connection between particular symptoms and definite nervous lesions is of the utmost importance in a clinical sense, and of the extremest interest from a physiological point of view. It must be theoretically true that alterations in particular parts of the nervous structures are attended by definite and certain symptoms; and, practically, it must be equally true, could such lesions exist as results of disease, corresponding phenomena must occur.

The physiological study of nervous disease is a new pursuit; in our text-books we find scarcely an attempt to place nervous diseases on a scientific basis, and in no direction is more to be discovered and more to be gained. Our knowledge of the physiology of the nervous system has depended in part upon experiments upon animals, in part upon the experiments made for us in the human body by disease. Among the experiments which have afforded the best results have been those on the spinal cord and the nerves; as regards the brain, the results obtained by the study of diseased states are more reliable than those derived from vivisection or direct experiment.

In this paper is given the connections that exist between particular affections and diseased states of the nerve centres. The whole number of original cases given by Dr. Wilks is seventy-nine. Some generally correct conclusions, at least, to the best of our judgment, are arrived at, and a method of framing a scientific classification of nervous diseases is approached.

The spinal cord and the two large ganglia at its summit, in the brain, contain the working power of the body; while the cerebral hemispheres have the power of control, and are also the seat of the intellectual operations and of the consciousness and will. The whole working of the machinery of the body, unless under morbid conditions, is performed without the exercise of will or feeling on our part, and in all probability it is true also that processes of intellect may be carried on in the cerebral hemispheres without our direct knowledge or consciousness. There is every reason to believe that sensory impressions may be conveyed beyond the ganglia at the summit of the cord to the cerebral hemispheres, and then setting in active operation that wonderful machinery, may produce purely mental results without any necessary consciousness on the part of the individual. The Cartesian philosophy teaches that physiology is limited to the domain of consciousness, that the mind always thinks, that being and knowing are the same, and that even during sleep and stupour consciousness exists. Such doctrines are completely overturned, and so far from consciousness being the basis of all intellectual operations, it might, in some cases, be the result of them.

During sleep, when entirely unconscious, the mind works. Study a question in the evening, and you often find it solved in the morning. Laplace, the illustrious mathematician, tells us, in one of his works, that frequently he thought over a problem before retiring to rest, and found it solved in his mind on awakening. The school boy looks over his lesson in the evening, puts the book under his pillow, and knows the lesson in the morning. The idea is deposited in the brain, as a crystal is formed when the mother-water, after agitation, is allowed to rest. A just and scientific view of this interesting piece of philosophy is of great assistance in the understanding of many phases of animal and organic life.

Soon after the discovery of the double nature of nerves, it was surmised that the motor nerves pass up the front of the spinal cord, and the sensory along its back. Observations in cases of disease and injury soon showed such opinions to be erroneous, and their results have been corroborated by recent experiments made by Brown-Séquard, which prove that the motor tract is chiefly in the antero-lateral columns, and that the sensory fibres pass more especially along the centre of the cord, first crossing to the opposite side soon after they enter it, and that even the gray substance conveys sensory impressions. Besides containing these strands of fibres for sensation and motion, the spinal cord possesses a property of its own, known as the *excito-motor* function, by which a stimulus conveyed by a nerve to the cord excites a corresponding motion without the animal taking cognizance of it, or having any voluntary share in its taking place. Passing along the cord, the motor tracts pass to the opposite sides at the medulla oblongata, and then proceed in part to the cerebellum and in part to the pons Varolii. Those to the pons Varolii pass through the crura cerebri to the thalami optici, and the corpora striata. The physiologist traces them through the lower part of the pons, and the crura cerebri, and then along the lower border of the thalami to end in the corpora striata. The sensory fibres pass up in like manner to spread only in the thalami optici. It has also been shown, both by physiological and pathological observations, that in passing up from the medulla to the ganglia above, the motor tract contains more especially the fibres from the extremities, and that the nerves to the chest and those which are styled cranial nerves have distinct centres of power of their own.

The will has its seat in the cineritious structure of the brain, and influences the ganglia below by means of the white fibres of the medullary matter. It has not yet been positively determined whether any of the nerve fibres from the cord pass directly to the cerebral hemispheres, or whether they all terminate in the cerebral ganglia, the further communication between these ganglia and the hemispheres being in this case effected by independent fibres. The influence conveyed by the will differs altogether from that imparted by a nerve from the ganglia. In hysteria, when the influence of the nerve-centres is good, but the will is wanting, the natural character and plumpness of the limbs are preserved; in paralysis, from injury or disease of the ganglia, the limb is withered. It has been positively ascertained that the will can act upon the limbs only through the corpora striata and thalami; but it is yet uncertain whether it can act, when these are destroyed, through the nerve centres of the pneumogastric and other cranial nerves, upon the muscles of the face and chest. Anatomists would make fibres pass from the pons to the surface of the brain without touching the cerebral ganglia, and it might seem from some observations in diseased persons, that the will could act irrespective of the intervention of the ganglia.

The large vascular supply to the corpora striata and thalami is probably the reason why hemiplegia, that is, paralysis of the arm and leg only, with a partial affection of some of the muscles of the face—is one of the commonest forms of paralysis. The loss of speech in right hemiplegia is so remarkable a circumstance, and one that has of recent years excited so much interest, that we will cite entire the whole passage in this article relative to this affection :—

"With regard to the loss of speech in right hemiplegia, I need scarcely say that my observations accord entirely with those of Dr. Hughlings Jackson, although the true explanation of this remarkable circumstance has yet to be discovered. It cannot be believed that the organ of speech is originally situated on one side of the brain only, and thus the explanation must be sought in some secondary cause. My colleague Dr Moxon has offered a very good theory, which probably has much truth in it; it is to the effect that of the two halves of which the body is made up one is more especially educated, and that the other follows the movement by consent. This phenomenon, which appears so remarkable, is probably merely one instance of a general law of our bodies which has been hitherto overlooked; so far from being exceptional, I believe it to be only one example amongst numerous others, which shows how partial is the education of our muscles. In the case of writing the fact is so evident that we have never thought of its importance in reference to the physiology of the brain; as most persons write with their right hand, a hemiplegia on this side deprives them of the power to write, whereas a similar affection of the left side has no such effect. Now, when we consider that the mechanism by which writing is performed is entirely the product of education, and that the various movements are guided by nerves which are themselves under the influence of the brain, it becomes evident that one side of the brain only obtains the guiding power. Hence, were it possible for the halves of the brain to be changed over, so that the limb should retain its activity, the power to write would, I take it, still be wanting. It might, of course, be acquired, and thus our hemiplegic patients again learn to talk as they did in infancy. It is probable that for those operations in which we can use both sides of the body equally both sides of the brain have been educated alike; but since in many acts one side rather than the other has been put into use, it has followed that one half of the brain has been specially educated. As regards the movements of the limbs, this is self-evident, but it now seems to be equally true of the power of speech, and it may be true, likewise, of many other operations, as, for example, musical performances. So, again, with reference to the eye; I have heard of a man who was in the habit of using a theodolite with the right eye, and who could not employ the left for this purpose, although the sight was equally good.

"There seem to be different degrees of loss of speech. Thus, in some cases there is a mere inability to articulate, whilst the patient is able to write; in others, a loss of memory of words until they are suggested; and in yet others a total forgetfulness of names, the patient giving everything a wrong appellation. It would be important to know whether these different symptoms are associated with distinct lesions; at present it is thought that loss of speech is associated especially with some disease in that part of the brain known as the island of Reil; and yet, at the same time, it is said that the loss of speech is nearly always connected with a hemiplegia. It follows, therefore, that, unless disease in the spot just named is sufficient to produce a hemiplegia, there must be an affection of the centres, extending towards the external parts.

"In all the cases which I have myself seen, and, if I remember rightly, in those which have been recorded by others, there has been disease in the central ganglia, and I take it that this is necessary for the production of a hemiplegia. But the question remains, is it necessary that disease should advance beyond these parts in order to cause the loss of speech? According to the theory of the education of the one side to the disparagement of the other, a simple loss of power is all that would be required to produce this symptom; and if, as a matter of fact, loss of speech accompanies all right hemiplegia, then, assuredly, a small spot of disease in the central ganglia is sufficient. It may, indeed, be thought that a further extension of the mischief outwards to the gray matter of the hemispheres (especially in the region of the island of Reil) is essential to the further loss of all memory of words; and, on that supposition, we should be on the watch for cases in which this part is injured independently of the centres, and in which loss of speech would, perhaps, exist without any corresponding hemiplegia. Cases of loss of speech certainly occur without a paralysis of the limb, but I am not aware that they have been shown to be due to disease in the island of Reil. I have on more than one occasion seen loss of speech with right hemiplegia where the lesion was confined to the centres, but in these cases I believe that the failure of speech proceeded no further than an inability to articulate. Aphonia may also occur from disease in the pons Varolii, and I have thought that, by noting accurately this symptom in cases of disease lower down in the motor tract, we might obtain a proof of the importance of the anterior lobe in the production of speech. For example, a lady had disease in the pons Varolii; her tongue and soft palate were paralyzed, so that she could not utter a word, but she could write down accurately all her wants. On the other hand, I am now seeing a patient who has somewhat similar symptoms, denoting a disease of the pons, and who has loss of speech; but before this was complete, and when she spoke intelligibly enough to make herself understood by her husband, she called things by their wrong names. The cause was clearly not in the brain proper, for the temporary paralysis which she at first had was on the left side.

"If we believe that, for the production of a persistent hemiplegia, some part of the motor tract must be involved—if we find that in nearly all these cases of loss of speech with paralysis of the right side one of the central ganglia is affected—and if we also adopt the theory that this peculiarity is due to the education of one side alone—these facts would imply simply that the muscles of the tongue and palate had never learned to act in a certain definite manner; but whether the memory of words, being independent of the mechanism by which they are formed, requires another locality for its action, is very doubtful. This anatomical and physiological question merges into the old metaphysical one as to how far the idea must correspond with the outward sign. I apprehend that, according to Dr. Jackson's supposition, a disease of the left corpus striatum would necessitate a loss of the power of articulation, and, if it also involved the neighbouring cineritious structure, would likewise destroy the faculty of speech; while if the latter were the only function affected it would be surmised that the surface about the island of Reil was alone affected."

As regards the respective functions of the ganglia, though there can scarcely be a doubt that each has its own peculiar office, yet there is no evidence in the experience of Dr. Wilks, to connect the ganglia separately with the motor and sensory tracts. The anatomist, by dissection, shows that the motor tract passes into the corpus striatum, and the sensory into the thalamus. By clinical observation no such distinction in office has as yet been made out.

Disease of the pons Varolii, or medulla oblongata, by affecting special nerves, is productive of a distinctive form of paralysis. In ordinary hemiplegia there is merely a temporary inhibitory influence on the facial nerve centre, while in actual disease of the pons the nerve root may be involved, and thus, with the hemiplegia, there may be a decided facial paralysis on the same side. According to Brown-Séquard, in such a case, the upper part of the pons is affected; while when the lower part is the seat of disease, owing to the decussation of the fibres of the seventh pair in the pons, paralysis of the face occurs on the side opposite to that of the limb. This opinion Dr. Wilks has not been able to make sure of, from his own clinical observations. Disease of the pons may also affect other nerves, as, for instance, the fifth or the sixth. By disease still lower down towards the medulla oblongata, the fibres of the lingual and glosso-pharyngeal nerves are involved. Three instances of such an affection are given. Of disease confined to the medulla oblongata none are recorded.

Another symptom often observed in disease of the pons is contraction of the pupil, just as we see this produced by effusion of blood at the base of the brain or into the ventricles. This state of the pupils has often led to the suspicion of opium poisoning. In many instances, sensation has been markedly affected, as evidenced by a feeling of coldness in the extremities; and in one case, in which a tumour pressed on the pons, a sensation of numbness, and various odd feelings over the body were experienced.

The effects of disease of the superficial gray matter of the brain, are shown in the following case, which we cite entire from its rarity as well as its extraordinary interest and importance. The case is comparable with one of paralysis resulting from unilateral arachnitis; but in the latter the inflammation is seldom confined entirely to one side, and it is necessarily accompanied by disturbance of the intellect:—

"CASE 18. *Disease of cineritious surface of the brain; hemiplegia.*—A woman, æt. 36, struck her head against a beam of the ceiling several months before death; she subsequently became ill and had two or three attacks of vomiting. About three months before her death she became very ill, and took to her bed; she had febrile symptoms, sickness, &c., and was evidently suffering from cerebral disturbance. After the urgent symptoms had passed off she lay quiet in bed, and appeared quite sensible of what was said to her. She gradually became weaker in her limbs, and especially in those of the left side, until, in three weeks, her left side was quite paralyzed. After this she lay quiet, apparently sensible, and able, although with difficulty, to answer questions and to put out her tongue. On being asked a question she would wait and deliberate, and then slowly answer. The most remarkable symptom was the fact that she never seemed aware that she had lost the power of the left side. On being asked about her arm she always declared she could move it, although it lay helpless by her side. She gradually got weaker; mucus collected in her bronchial tubes, and thus she died.

"The post-mortem examination showed nearly the whole of the surface of the right hemisphere of the cerebrum to be diseased; it was in a very peculiar condition, as if the whole cineritious substance were undergoing disintegration. This was not so apparent on the surface as on taking off a thin slice, when the cortical part of the brain was seen to be of a yellowish colour, worm-eaten and soft. The disease, in some places, affected the deeper layers more than the external. The disintegration reached the medullary matter, but did not appear to penetrate deeper. This morbid condition extended all over the right hemisphere with the exception of the base. The left hemisphere was quite healthy."

In disease of the surface, as from compression, consciousness is gone together with the will; in disease of the centres the will is good, but the machinery is inefficient; in this case, one hemisphere remained healthy, and thus consciousness was preserved, the patient could not move the limbs, because the power to stimulate the apparatus was wanting, and yet, though consciousness remained, she did not feel the inability; the limbs receiving their usual nervous influence through the healthy nervous centres.

In the cases of paralysis from compression by blood or pus, the consequence of an injury, there are some highly important facts in the practice of surgery. One is that a partial hemiplegia, occurring soon after an injury, always points to a clot on the opposite side, and the other is that an abscess in the situation in which the clot of blood is thrown out, was never met with, so as to be accessible to an operation. The unconsciousness which comes on in these cases is produced by inflammation of the surface of the brain; and hemiplegia, if present, is either a symptom of arachnitis, or is due to the lesion of the brain having extended into the deeper parts. This theoretical objection to secondary trephining, Dr. Wilks says, is borne only by practice; it has fallen to his lot to examine the bodies of many in whom the operation has been performed, and though he has made repeated inquiries, he has never been shown in the wards of the hospital any cases in which recovery has followed such an operation.

Under the heading of *injury to the central parts of the brain from violence* are some cases of the highest importance in a medico-legal point of view, as they show that even in cases of injury the centre of the brain may occasionally receive all the violence of the shock. Several of the cases here related suggest the consideration that probably many erroneous impressions, as to the cause of particular nervous symptoms, arise from it not being known that disease of the brain may extend to the spine, and *vice versâ.* The ventricles of the brain communicate with the subarachnoid space of the brain and spinal cord, and inflammation of one is constantly associated with a similar affection in the other.

Compression of the brain by depressed bone is a subject which Dr. Wilks does not discuss, not being furnished with well-attested facts that bear upon it.

Diseases implicating the surface of the brain affect the intellectual powers, the will and the consciousness, and produce convulsions. Of this portion of Dr. Wilks' paper we will not attempt to make an abstract. We will state, however, that no symptom is associated with disease of a particular part of the brain more certainly than convulsions with an irritation of the surface. Of epilepsy, Dr. Wilks says, that from clinical and post-mortem observations, as well as from all analogy, we cannot but conclude that the *fons et origo mali* is in the cineritious substance of the brain.

Disease of the medullary substance leads to symptoms, generally, of an altogether negative character. No paralysis ensues; there are no fits, and in many cases there is no pain; there is no disturbance of the intellectual functions, or, if present, it consists merely in a general obscuration of the faculties. Physiologists believe that this substance consists of fibres connecting the surface of the brain with the cerebral ganglia, and there is every reason to believe that this view of its structure is correct.

In Dr. Wilks's cases of disease of the cerebellum, there is nothing to support the general belief of physiologists, which is founded upon experiments made on the lower animals, that its function is to harmonize and co-ordinate the various movements. Nothing more was observed than a desire to lie quiet in bed, and an anxiety to be let alone, and these are common symptoms in other cerebral diseases.

As the fact is, apparently, not so generally known as it should be, we will state, in concluding our abstract of this paper, that instant death is not caused by disease of the brain. In other words, apoplexy is very rarely, if ever, a suddenly fatal disease. Even when blood is effused into the pons Varolii and the neighbourhood of the fourth ventricle, two or three hours elapse before the death of the patient. Among the reports of several thousand post-mortem examinations, Dr. Wilks found only one case in which death was sudden; this was a case of meningeal apoplexy.

V. *Remarks on some of the Functional Diseases of the Nervous System.* By SAMUEL WILKS, M. D.

These remarks are excellent, and the views maintained are of the more weight as coming from one who has devoted much time to pathological pursuits, and might therefore be supposed to be inclined to look for organic disease in all cases of disturbed function. That a nerve centre should act violently, and that it should cease to act, are conditions which occur in health; and we can hardly suppose that modifications of action, constituting morbid states of the nervous system, are necessarily evidence of organic disease. If various irregular movements in the limbs can be produced by voluntary effort, there seems no reason to look for organic change in that centre whence such movements proceed when they are altogether involuntary.

VI. *A few words on the Means to be adopted for Establishing a Communication between the Bladder and the Exterior of the Body, when the Urethra has become Impermeable. The last resource available in certain cases.* By EDWARD COCK.

In this paper, Mr. Cock recommends an operation that enables the bladder to be reached, when the catheter cannot be introduced in the ordinary way, and even when the bladder cannot be tapped through the rectum. This operation, which is tapping the urethra as it emerges from the prostate, is thus described:—

"The only instruments required are, a *broad* double-edged knife, with a very sharp point; a large silver probe-pointed director, with a handle; and a canula, or a female catheter modified so that it can be retained in the bladder.

"The patient is to be placed in the usual position for lithotomy; and it is of the utmost importance that the body and pelvis should be straight, so that the median line may be accurately preserved. The left forefinger of the operator is then introduced into the rectum, the bearings of the prostate are carefully examined and ascertained, and the tip of the finger is lodged at the apex of the gland. The knife is then plunged steadily but boldly into the median line of the perineum, and carried on in a direction towards the tip of the left forefinger, which lies in the rectum. At the same time, by an upward and downward movement, the vertical incision may be carried in the median line to any extent that is considered desirable. The lower extremity of the wound should come to within about half an inch of the anus.

"The knife should never be withdrawn in its progress toward the apex of the prostate; but its onward course must be steadily maintained, until its point can be felt in close proximity to the tip of the left forefinger. When the operator has fully assured himself as to the relative positions of his finger, the apex of the prostate, and the point of his knife, the latter is to be advanced with a motion somewhat obliquely either to the right or the left, and it can hardly fail to pierce the urethra. If, in this step of the operation, the anterior extremity of the prostate should be somewhat incised, it is a matter of no consequence.

"In this operation it is of the utmost importance that the knife be not removed from the wound, and that no deviation be made from its original direction, until the object is accomplished. If the knife be prematurely removed, it will probably when reinserted make a fresh incision, and complicate the desired result. It will be seen that the wound, when completed, represents a triangle; the base being the external vertical incision through the perineum, while the apex, and consequently the point of the knife, impinges on the apex of the prostate. This shape of the wound facilitates the next step of the operation.

"The knife is now withdrawn, but the left forefinger is still retained in the rectum. The probe-pointed director is carried through the wound, and, guided by the left forefinger, enters the urethra and is passed into the bladder. The finger is now withdrawn from the rectum; the left hand grasps the director, and along the groove of this instrument the canula is slid until it enters the bladder.

"The operation is now complete, and it only remains to secure the canula in its place with four pieces of tape, which are fastened to a girth round the loins. There will probably be no escape of urine until the stilette is removed from the catheter.

"A direct communication with the bladder has now been obtained, and the relief to the patient will be immediate."

VII. *On a Case of Vitiligoidea Plana et Tuberosa.* By F. W. Pavy, M.D.

Vitiligoidea is the name given by Drs. Addison and Gull to an affection of the skin first described by them in the seventh volume, second series, of the *Reports*. The case here recorded is one exceedingly well marked. The tubercles, by which the disease is marked, were shown under the microscope to consist of nodules of exceedingly dense fibrous tissue, with interspersed fat granules. The examination revealed nothing to lend support to the notion that this disease is of a sebaceous nature.

This paper is illustrated by a coloured plate, containing three figures, showing the appearance of the face and head of the patient, and by a wood-cut, representing the microscopical appearance of a portion of a tubercle.

VIII. *Contributions to the Physiology of Binocular Vision.* By Joseph Towne. Section VII.

In the former sections of these *Contributions*, the observations had reference chiefly to the stereoscope and stereoscopic results; in the present, the facts are applied and illustrated to exhibit them in their relation to binocular vision. They would seem to lead to these conclusions:—

That we do not see from the orbits, or in the direction of the two eyes.

That the eyes are not the true organs of vision, but must be regarded simply as two cameras, instruments for gathering in the retinal images, but having no action *external to themselves*.

That we see in the direction of the median plane of the head as from one central eye, and that this central eye consists of two symmetrical halves, the right half comprising the right halves of the two retinæ, and commanding the left side of the external field; the left half comprising the left halves of the retinæ, and commanding the right side of the external field.

This paper is accompanied by two plates containing a number of explanatory figures.

IX. *Clinical Remarks on the Treatment of Diseases of the Heart.* By S. O. HABERSHON, M. D.

No class of diseases, as Dr. Habershon says, excite greater alarm than affections of the heart, and in none is greater relief afforded by right treatment. It is not, however, by any direct remedy or specific that alleviation can be effected, but rather by attention to certain plans or principles of treatment, which must serve as our guides in such cases. Their principles are thus excellently well set forth; they are—

1. To lessen the work of the heart.
2. To insure regularity of action.
3. To lessen distension of its cavities.
4. To prevent syncope.
5. To strengthen the muscular fibre of the heart.
6. To hinder the fibrillation of the blood in the heart and great vessels.
7. To prevent secondary complications, and to relieve them when produced.

The advice given to effect these ends is admirable.[1] Several cases of heart disease are appended, as affording illustrations of the practical application of the principles laid down; and they also suggest many points of interest in relation to diagnosis and pathology.

A plate is added to this paper to illustrate a case of disease of the pulmonary valves.

X. *Twelve Cases of Poisoning, apparently from the Use of Copper for Culinary Purposes. Death from poison or disease after nineteen days' illness.* By ALFRED S. TAYLOR, M. D.

This paper, like all similar contributions from Dr. Taylor, is of importance in a medico-legal point of view. He makes one statement which deserves especial attention. The gravy, he says, by which the persons were poisoned, was prepared by stewing the meat with common salt in a badly tinned copper stewpan, and the liquid allowed to remain in the vessel throughout the night. This mode of preparation, it is said, "involves conditions necessary for impregnating a liquid with a salt of copper."

XI. *On Papillary Tumours of the Gum.* By S. JAMES A. SALTER, M. B., F. R. S.

This paper contains the histories of two very remarkable and extremely rare tumours of the gum. It is illustrated by four woodcuts.

XII. *On Amputation of the Cervix Uteri, and other Methods of Local Treatment, in cases of Malignant Disease of the Uterus and Vagina.* By J. BRAXTON HICKS, M. D.

For amputating the neck of the womb, Dr. Hicks prefers the use of the écraseur, a very strong rope of wire being passed around the neck, to the shaft of the instrument, which should be placed in front of the cervix. He states that he has operated, or been present, in more than twenty-eight cases, and has never seen any fatal result or any untoward symptom whatever.

As a styptic to check offensive discharges, Dr. Hicks has found the anhydrous sulphate of zinc, which has been much commended by Sir James Simpson, very efficient. It is readily made by placing the ordinary sulphate of zinc in a porcelain basin over a spirit-lamp. The salt first melts in its water of crystallization, after which it gradually dries; when completely dried it can be powdered. A good form of application is to mix it with glycerine to a paste-like condition. It has a powerful effect upon the abnormal tissue, and but little or none on the sound, and can therefore be used liberally without fear of injury. Should it cause much pain, which it seldom does, this is readily relieved by injection of warm water.

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[1] For some further notice of these measures see Quarterly Summary.

XIII. *A Case of Intermittent Hæmaturia, with Remarks.* By William W. Gull, M. D.

This disease is characterized by the passing, at intervals, of urine of a dark colour, looking as if it contained blood. No blood-corpuscles, however, are present. Under the microscope are found granules, consisting of very small prismatic crystals of hæmatin, granular casts of the tubules, a few degenerated epithelium-cells, and crystals of oxalate of lime.

The history of the case related in this paper is given in detail, and followed by some very interesting remarks upon the functions of the kidneys. One of the great functions of these organs, as is well known, is to form the colouring matter of the urine from the colouring matter of the blood, and when they are not in a healthy state, the hæmatin is not eliminated in the condition of urine pigment; instead of that, the hæmatin itself passes off. Dr. Gull believes that the renal tubule is not excretive, but secretive and absorptive; and in this opinion, if we are not mistaken, the best anatomists coincide with him.

XIV. *Contributions to the Practical Surgery of New Growths or Tumours, Series V.—Cartilaginous and Bony Growths.* By John Birkett.

The cases, nine in number, which are recorded in this series, form an important addition to the literature connected with a class of tumours not often met with, and which cause, at times, errors in diagnosis.

This paper is accompanied by two lithographic plates.

XV. *A Case of Abdominal Tumour.* By S. O. Habershon, M. D.

This case is one of cancerous disease of both supra-renal capsules, simulating disease of the spleen and lumbar glands. The symptoms were emaciation, a fixed pain in the region of the growths, irregular perspirations, complete loss of appetite, occasional vomiting, restlessness, want of sleep, and extreme prostration. The physical signs were sallowness of the countenance, and abdominal tumours in both lumbar regions and in the left hypochondrium, with bulging of the lower ribs on the left side.

The case is illustrated by a plate, which shows the relative positions and comparative sizes of both supra-renal capsules and both kidneys.

XVI. *On the Urine in Acute Rheumatism.* By Thomas Stevenson, M. D.

This paper contains the details of some cases of acute rheumatism. Each case is thus arranged: After a very brief history of the case the daily excretion, in grains, of urea, uric acid, phosphoric acid, and sulphuric acid, during the acute stage, is stated, and by the side of these quantities are given the corresponding quantities excreted during convalescence, whenever they were ascertained. When the weight of the patient, during health, was known, a table is given which exhibits the proportionate quantities of the above substances excreted for each pound weight of the body. The conclusions arrived at by Dr. Stevenson are these:—

"1. In acute rheumatism, when the excretion of solid materials in the urine is large, the patient makes, other things being equal, a rapid recovery; on the other hand, in lingering cases the excretion of solids is usually small.

"2. As in this disease the urine is invariably scanty in bulk, but (generally from this cause only) of high density, a useful guide to the progress of the case may probably be found by diluting the urine to the normal bulk, and then ascertaining its specific gravity. According as it is now of high or of low density will the progress of the disease probably be favourable or unfavourable.

"3. Though the excretion of urea is usually greater during the height of the disease than during convalescence, this is not invariably the case; the reverse sometimes occurs. Though the excretion of urea is greater during the disease than during the early stage of recovery, the urea in the former stage seldom very much exceeds in amount the normal physiological excretion.

"4. The uric acid is always much increased whilst the disease continues.

"5. The phosphoric acid is generally in greater amount during the progress of the disease than during recovery, but the quantity of this substance rarely much exceeds the quantity secreted in health.

"6. The excretion of sulphuric acid is generally increased, and often largely.

In one instance more was excreted during recovery than during the acute stage of the disease. The amount of this substance excreted is very variable."

XVII. *Case of Excision of the Spleen for an Enlargement of the Organ, attended with Leucocythemia, in a patient under the care of Dr. Wilks; with Remarks.* By THOMAS BRYANT.

In this case, the patient was operated upon at 2.30 P. M. and died at 4.30 P. M. An examination after death showed a large clot of blood in the abdomen, weighing about one and a half pounds. Whence the hemorrhage had proceeded was not satisfactorily determined.

Mr. Bryant, although the result in this case was unfortunate, is more disposed than ever to operate in similar cases.

XVIII. *Spontaneous Cure of Aneurism of the Aorta.* By WALTER MOXON, M. D.

In this paper the history is given of a patient, where, after his death from cancer, an aneurism of the aorta was found, that had spontaneously healed. The conditions under which a cure has taken place, in this and similar cases, are minutely considered, so that, if possible, these conditions may be imitated. It may be stated, positively, that the cure of aneurism is always associated with wasting of the body, or conditions otherwise equivalent to the method of Valsalva.

This paper is illustrated by two plates, containing four figures.

XIX. *Notes on Cases connected with Obstetric Jurisprudence.* By J. BRAXTON HICKS, M. D.

These cases are of fracture of the skull in new-born infants; fracture of the fœtal cranium in utero by the midwife's manipulations; attempt of the mother to injure the child during the pangs of delivery; occurrence of apparent death between the birth of the head and that of the body; spasm of the larynx; and the relative rapidity of the decomposition of the fœtus and placenta in utero.

This paper is an interesting one, and some of the observations are new to us. It should be studied by those concerned in medico-legal investigations.

XX. *Cases of Acute Rheumatism treated by Lemon-Juice; with Remarks.* By S. OWEN REES, M. D.

The cases of acute rheumatism detailed in this paper are nine in number. They go to show that when lemon-juice is administered (two or three ounces, every four, six, or eight hours) the pain is relieved earlier, and the duration of symptoms is less, than when the disease is treated upon the expectant plan. The average duration of the disease in the one case was 6.8 days, in the other 8.5.

XXI. *Select Clinical Reports.* (Memoir V.) By G. H. BARLOW, M. D.

There are five cases reported in this present memoir, all of them cases of rheumatism. Some prefatory remarks are so appropriate and so well expressed that we think proper to quote them:—

"There are few practical questions upon which, as it appears to me, there has been greater diversity of opinion amongst medical men than that of the treatment of acute rheumatism. I do not at present allude so much to the now obsolete practice of indiscriminate bleeding and calomel, as to the later modes of treatment by chemical action, by elimination, and by merely expectant treatment. I am not prepared to say whether chemical remedies produce their effect by the decomposition or neutralization of the peculiar acid present in the blood in rheumatism, but it is nevertheless true that the most successful of these, the lemon-juice, contains a salt of potass, which may be an eliminant, and that citric acid in its uncombined state has not the same efficiency. The occasional success of the expectant treatment, or the giving no active medicine whatever, has been regarded by some as a proof of the inutility of all the other modes of treatment, and by some as an argument against the use of drugs in the treatment of disease in general. What, however, I would urge is that no one of these modes of treatment is most applicable to all cases, and that the success of the expectant treatment only shows that rheumatic fever, like all acute disease, is capable of spontaneous recovery; and that where this recovery is proceeding steadily and safely the officious use of drugs is to be avoided, and that the skill of the experienced practitioner never appears to greater advantage than in the discrimination of the cases which do not require his interference; but that, on the other hand, many cases will not proceed thus favourably if left to themselves, and in such instances there is occasion for the use, not of a specific remedy, for as yet we know of none such for rheumatism, but of medicines adapted to the exigencies of the particular case."

XXII. *A Second Report of Cases of Acute Rheumatism treated in the Wards of Guy's Hospital, with Remarks on the Natural History of the Disease.* By Henry G. Sutton.

This report, as the first one in the preceding number of the *Reports*, gives the history of cases of acute rheumatism treated by mint water alone, or almost alone. The conclusions arrived at are the same.

XXIII. *Cases of Operations on the Larynx.* By Arthur E. Durham.

Two cases are here related where the larynx was freely opened by an incision in the median line, through the thyroid cartilage, and adjoining parts; in one for the removal of warty growths, in the other for the extraction of a cherry stone. In both the result was satisfactory.

Two remaining papers in this volume are entitled respectively:—

XXIV. *On Diseases of the Retina; with Remarks on its Structure and Normal Conditions.* By C. Bader, and

XXV. *Clinical Remarks on Perforations, and some other Morbid Conditions of the Membrana Tympani.* By James Hinton.

Of these papers we cannot attempt to present an abstract. The first occupies seventy, the second fifty pages, and each is a monograph of rare value, and well worthy of an elaborate review. The one by Mr. Hinton is beautifully illustrated by coloured plates representing various morbid conditions of the membrana tympani.

O si sic omnia! If from every large hospital should issue yearly a volume of "Reports" such as that furnished by the gentlemen forming the medical staff at Guy's, what strides our profession would make! All honour and praise be to them for the noble use they make of their advantages for the common good.

W. F. A.

Art. XVIII.—*St. Bartholomew's Hospital Reports.* Vol. II. London, 1866. 8vo. pp. 264.

For more than thirty years, a volume of reports, as is known to many of our readers, has been annually issued from Guy's Hospital. The great favour with which those volumes have been received, from their making widely known the practice of one of the leading hospitals of London, and thus throwing open to the whole profession a large emporium of knowledge, which would otherwise have been restricted to the hospital staff and pupils; and likewise the reputation which that publication has obtained for the medical school, and the stimulus it has imparted to the clinical pursuits of the pupils, have induced several other London hospitals to follow the example set by Guy's.

The volume before us, issued from St. Bartholomew's, is the second that has appeared, and is creditable to that venerable institution. It contains twenty-six articles, a brief abstract of which we shall lay before our readers.

Art. I. *Pathological Anatomy of the Kidney.* By Reginald Southey, M. D.

In this paper the author treats in separate divisions of the pathological conditions of the cellular, vascular, and glandular elements. Under the first, he includes *hypertrophy* and *cellular* hyperplasy; the former being "a simple increase of the intercellular elements or substance;" the latter "those changes which take origin from the cells of the connective tissue." He observes, that portions of the stroma in the medullary portions of the kidney at times assume an hypertrophied condition, and are apt to be mistaken for tubercles, but differ from them in their larger size and opaque white appearance. With the vascular condition he treats of the so-called, amyloid change, believing it to be due simply to the thickening of the walls of the renal vessels at the expense of their calibres, and quotes Schmidt and Kekulé to prove that the material characterizing it is of an albuminous nature, having no relation whatever to cellulose. In its early stages, it is often confounded with diseases to which it has, in reality, no affinity. "The kidney may be firm, level, smooth, rather large, the capsule non-adherent, the tissues somewhat over-translucent, and yet there may exist no amyloid change whatever in the vessels; again, it may present no apparent trace of disease, and yet prove amyloid in a high degree. It may have every look of having been the seat of old glandular disease, be small, granular looking, with an adherent capsule, and an irregularly packed surface, with diminished cortical and vascular and drawn-up medullary portion, yet still be the seat of extensive amyloid degeneration." An instructive account of vascular obstruction is given. If the artery plugged by an embolus be small, an ecchymosed area, at times of a dusky hue, results, which subsequently becomes yellow from within outwards. Venous obstruction (thrombosis) is rarely complete, more or less blood returning through or around the clot. Cystoid degeneration is considered to be a disease of the glandular element; and is observed to be invariably associated with the straight tubes as a result of their obstruction.

No allusion is made to cancer, tubercle, or to effects of inflammation, and presence of calculi. The apparent object of the paper is to present some account of the pathology of the more obscure conditions of the organ. Although unaccompanied with illustrations or cases, the descriptions bear evidence of careful observation.

Art. II. *On Congenital Cystic Tumour.* By THOMAS SMITH.

The author gives an account of a class of tumours presenting the characters of cystic growths, but not deriving, so far as is shown, any peculiar features from their intra-uterine origin. They are confined to the trunk, and when placed along the line of the spine, may be confounded with spina bifida. Eight cases of the disease, occurring under the author's observation, are recorded. Six were cured by operation with the seton, to which decided preference is given; while spontaneous cures were effected in the remaining two.

Art. III. *Practical Observations on Diphtheria.* By W. NEWMAN, M. D.

This article furnishes a digest of our knowledge of the disease to the stock of which Dr. Newman makes no pretension to addition. He recommends application of strong hydrochloric acid, diluted one-half by honey or water, to the fauces once or twice in the twenty-four hours. He places little value upon gargles, and is opposed to any means of counter-irritation. He recommends the use of the chlorates internally. The following formula, combining an efficient local application, and a means of introducing chlorine readily into the system, may be employed with asserted advantage. ℞. Potass. chloratis, ʒij; acid. hydrochloric. f℥ij; aq. destillat. f℥ij. Mix the acid and water together first; add the mixture to the chlorate of potash, and keep the whole in a dark place; ʒij of this solution to be mixed with a pint of water, of which the dose is one or two tablespoonfuls, according to age, for internal use; or a wash for mouths or gargle. In speaking of diet, he says: "No existence of feverish symptoms, should, for a moment, be deemed warrant for confining a child to low diet. New milk is of very much value, and may be used in large quantities. Farinaceous articles are least to be trusted to."

Art. IV. *On the Relation of Phlebitis and Thrombosis to Pyæmia.* By WM. S. SAVORY, F. R. S.

The author presents an elaborate paper upon this subject, giving, in addition to his own, the views of pathologists, from the well-known experiments of Cruveilhier to our own time. But no new facts are presented; and it is by such alone that this much mooted point can be settled. He concludes as follows: "The sum of all that has been said amounts to this—

"Thrombosis may exist without any evidence of phlebitis, and very often occurs without being followed by pyæmia.

"Phlebitis may occasionally exist without thrombosis, and often occurs without being followed by pyæmia.

"Pyæmia often exists without any evidence of thrombosis or phlebitis; still oftener it occurs without any evidence whatever, that it has been preceded by either of these, or of any other affection of the veins."

Art. V. *Case of Intracranial Cyst containing Hair; also a Case illustrating the Physiological Action of Iodine.* By Wm. Turner.

The first case is that of a tumour, assigned to the group of cutaneous proliferous cysts of Paget, placed between the dura mater and occipital bone, of a child æt. 23 months; it being held by the author to have had at an early period communication with the integument. The second case is that noticed in the person of a chemist who was attacked with catarrh and excessive flow of tears, with smarting and photophobia, occasioned by exposure to the fumes of iodine and hydriodic acid. It is chiefly interesting from the rarity of the vapour of iodine acting upon a mucous surface to induce local iodism.

Art. VI. *Remarks on the Use of the Thermometer in Disease.* By John Southey Warter, M. D.

This paper furnishes the results of a series of daily observations extending over a period of two years. The temperature in diseases of the blood, lungs, abdomen, brain, and spinal cord, are treated of in order. In speaking of the distinction between typhus and typhoid fevers, he uses the following language: "In typhus fever running its usual course, there seems a direct ratio between the rapidity of the circulation and the heat of the body; the pulse and temperature rising together till the fever reaches its climax, when the pulse ranges generally from 110 to 144, and the temperature from 103° to 104° F. At one time, I used to think, that a low pulse and high temperature at the commencement of fever always indicated that it was specifically typhoid, but more extended observation has taught me that there are many exceptions to this rule; thus, occasionally, in febricula, rheumatism, tonsillitis, exhaustion from suckling, and phthisis pulmonalis, a temperature of 102° or 103° may occur with a low pulse rate; and these exceptions are the more worthy of attention as the aspect is in them often typically that of the early stage of typhoid fever; thus, in all there may be a clear, white, and perspiring skin, red lips, tinted cheeks, and dilated pupils, and hence, without some closer investigation, a superficial observer may be often deceived in his diagnosis. Perhaps the cases of enteric fever, in which the diagnostic use of the thermometer is most striking, are those in which malaise, and, perhaps, some diarrhœa have existed for several days, and yet the patient has got about; one day at length, however, the doctor is consulted, and finding the tongue clean and the pulse quiet, he is thrown from his guard, and is about to think but little of the attack; wishing to make sure, however, ere he dismisses his patient, he places his thermometer in the axillæ, and the mercury rising to 102° or 104° shows him that it is typhoid fever, and not a simple diarrhœa that he has to deal with. Again, in how many cases of supposed typhus does the thermometer, by marking a low temperature, contradict every other symptom! There may be a history of exposure to infection, a rigor may have occurred, the face may be muddy, the eyes injected, the pupils small, the pulse rapid, and the tongue thickly furred; still, if with all this the temperature at midday is below 99.5° or 100°, typhus fever, at any rate, may be stated positively not to exist." "In typhus, the pulse and temperature rise more or less together until the seventh, eighth, or ninth day, when they are at their highest; then they begin to decline, and drop steadily day by day in unison, both becoming normal about the fifteenth or sixteenth day. In typhoid fever, however, all is chaos; the pulse and temperature rise and fall irregularly." The author finds the temperature in active tuberculosis always elevated some time during the day, and it also follows the rule of being higher in the evening than in the morning; while cancer, in its ordinary form, does not give rise to any increase of temperature. The value of the thermometer was made less evident in diseases of the abdomen. Softening of the spinal cord in one instance caused a temperature of 106°, though nervous affection generally, whether functional or organic, indicated a slight elevation of the temperature.

Art. VII. *On the Treatment of Enlarged Bursa over the Patella.* By Wm. S. Savory, F. R. S.

The method preferred by the author is displacement of the tumour by puncture with the lancet, and subsequent equable compression by bandaging. In the event of the sac's refilling, the operation must be repeated. Should suppuration come on, poultices are to be substituted for compression. It is claimed by Mr. Savory that this method is safer and more expeditious in effecting cure than by either seton or extirpation.

Art. VIII. *On Gouty and some other Forms of Phlebitis.* By James Paget, F. R. S.

Gouty phlebitis appears to differ from other forms by its tendency to symmetrical metastasis, a fact which points towards the primary invasion of the walls of the veins, and, by its peculiar tendency, to recur. From the cases observed—the number is not given—one case alone proved fatal. Two cases of idiopathic phlebitis, both apparently dependent upon blood-poisoning from tainted atmosphere, are detailed: in one of which a man, æt. 42, who died after three weeks' illness, without symptoms of embolism, the vein of both upper and lower extremities were found to be inflamed and filled with clots. The heart was fatty, but without clots, while abscesses were detected. Markedly in contrast to such a condition is that described as following obstruction of single portions of great veins. Three cases are recorded where such a lesion was thought to have been recognized. The limb in all instances appeared as though increasing in muscular power, and the author believes real enlargement of the muscles of the limb to have taken place. The superficial veins were over full, the skin was pale or dusky, and marked with small bluish spots, while cool to the touch.

Art. IX. *Case of Congenital Myopia; with a faulty perception of colours limited to a small portion of one retina, of recent origin.* By Bowater J. Vernon.

Mr. Vernon gives a minute description of this case which is interesting from the fact that imperfect perception of colors existed in the retina of the right eye, while that of the left was in every respect perfect.

Art. X. *Respecting Rupture of the Axillary Artery in Reducing Dislocation at the Shoulder-Joint.* By George W. Callender.

In this paper is detailed a case of dislocation downwards and forwards in which, while the author was effecting reduction by manipulation during the sixth week, the axillary artery was ruptured. The vessel was tied five weeks afterwards; gangrene following on the fifth day, and death from pulmonary embolism on the seventh. A similar case (Mr. Paget's) is given in which the operation, performed three months after the accident, was entirely successful. The remainder of the article is devoted to brief notices of thirty-one recorded examples of the lesion. It is remarked that the occurrence of the accident is most common among persons over fifty years of age, a fact which does not, in the estimation of the writer, militate against attempt at reduction by manipulation where the arteries are not suspected of being diseased.

Art. XI. *Remarks on the Rectangular Talipes Equinus of Orthopædic Surgery.* By Holmes Coote.

The author gives a brief notice of a deformity of the foot due to a "state of tension of the gastrocnemic muscle," sufficient to prevent proper flexion and extension, but not to the degree occasioning the typical deformity of talipes equinus. When paroxysmal, attention to the general health is at times remedial; but "in the majority of cases the division of the Achilles tendon becomes ultimately necessary." The paper is illustrated with a wood-cut.

Art. XII. *On the Treatment of Irreducible Hernia.* By John Langton.

The plan proposed is that of steady and uniform pressure by means of a compressing bandage. A "fair amount of success" is claimed for it, and cases of irreducible hernia rendered reducible through its agency are narrated. While we can understand the efficacy of such pressure upon an old rupture, all things being equal, we would entertain doubts as to the propriety of its employment in those cases removed from the watchfulness of the surgeons, as when persons follow their ordinary occupations while under treatment.

Art. XIII. *Case of Wound of the Right Lumbar Region, involving and laying bare the Kidney; complete Recovery.* By Bowater J. Vernon.

Mr. Vernon narrates an interesting case of wound of right kidney in the person of a lad who fell from a height of forty feet upon his loins. The inferior extremity of the organ protruded. It was seen to be of a dull red-brown colour, "and moved freely with each contraction of the diaphragm;" its wounded surface had a fibrous appearance, and was free from blood. Urine escaped from the opening, and continued at intervals to pass away through the external wound during recovery, which was completed at about the tenth week.

Art. XIV. *The Inheritance of Cancer, and its Relations to Questions concerning the Local or Constitutional Origin of the Disease.* By W. Morrant Baker.

This paper is made up of deductions from a tabulation of 103 cases, to the effect that a pre-existing constitutional condition is necessary for the local development of cancer.

Art. XV. *Observations on the Pathology and Treatment of Joint Disease.* By Holmes Coote.

Chronic inflammation of the cancellous structure of bone is believed by the author to be the cause of a form of arthritic disease characterized by enlargement of the affected bone, with constant and abiding pain in the adjacent joint, unattended by synovial inflammation.

Art. XVI. *On the Prejudicial Effect of Inter-Articular Pressure in Joint Disease; and the Application of Continuous Extension, by means of a Weight, as a Remedy for this Condition.* By T. Howard Marsh.

The author discusses the advantages of extension in strumous joint disease, and in cases of deformity from burn. No mention is made of the operation of tenotomy now so favourably recognized by American surgeons.

Art. XVII. *Notes on Oxaluria.* By Dyce Duckworth, M.D.

The author briefly details five experiments confirming the effects of ingesta in inducing oxaluria; and indicates the presence of the acid in the urine during the convalescent stage of the majority of acute disorders.

Art. XVIII. *On the Treatment of Acute Pericarditis by Opium.* By Frederic J. Farre, M.D.

Eleven cases are presented, in nine of which the average duration of the disease was fifteen days, the shortest being three days. The opium was administered in grain doses every six hours, combined with camphor; in conjunction with bicarbonate of potash 20 grs. three times a day. Pain was relieved by leeches beneath left scapula, and blisters over region of heart.

Art. XIX. *Surgical Cases, Devon and Exeter Hospitals.* By Philip Chilwell Delagarde.

In this paper seven different subjects are introduced in as many pages. The result is unsatisfactory. In the record of a case of resection of the head of the femur for unreduced luxation into the sciatic notch, the author makes no mention of the after-treatment, or condition of the limb upon recovery, but concludes by saying "the relief was immediate." A case of traumatic tetanus with recovery which supervened upon injuries incurred from a waggon passing over both thighs, is given. The disease set in three weeks after accident, and under supportive treatment, terminated favourably in seventeen days.

Art. XX. *Case of Profuse Venous Hemorrhage from the Left Meatus Auditorius Externus, consequent on a Fall upon the Back of the Head.* By Luther Holden.

A drunken man, while walking in the street, falls and strikes his head against a lamp-post. Profuse hemorrhage takes place from left ear. The meatus is plugged, and the bleeding ceases. He does well until the twelfth day, when renewed bleeding follows the removal of the plug. The case terminates in recovery, but with loss of hearing in ear of affected side, upon the twenty-fourth day. The probable source of hemorrhage was from the lateral sinus, which rupturing the mastoid cells, allowed the escape of blood through the lacerated tympanic membrane.

Art. XXI. *Case of Aneurism of the Lower Part of the Common Iliac, of the External Iliac and Femoral Arteries, successfully treated by Pressure of the Abdominal Aorta.* By VINCENT F. ECK.

Four hours' firm and continued compression by a Lister's tourniquet is reported to have cured an aneurism of two years' standing. In one month after operation the patient was entirely well.

Art. XXII. *Medical and Surgical Landmarks.* By LUTHER HOLDEN.

"In going round the wards of the hospital I often have occasion to point out, on the surface of the living body, any landmark—such as a line, an eminence, a depression, which is a guide to, or an indication of, deeper-seated parts; and I find this practice all the more useful, because many, even advanced students of anatomy, are not so ready as they ought to be in recognition of parts when covered by skin. They are familiar enough with the bones, muscles, and blood-vessels displayed in the dissected subject, but are often at fault when they come to put this knowledge into practice." Following these prefatory remarks, the author briefly indicates the chief features or "landmarks" having valuable surgical relations of the several regions, commencing with those of the head; this article, which promises to be one of a series, terminates with the region of the back. In speaking of parotid abscess he recommends holding the blade of the knife horizontally, so as to be less likely to injure the branches of the facial nerve. He countenances the division of the gustatory nerve for temporary relief of pain in carcinoma of the tongue. The following are apt remarks upon tracheotomy: "In the dead subject nothing is more easy than to open the trachea; in the living, no operation may be attended with greater difficulties. You must expect to find the patient with his head bent forwards, and the chin dropped, to relax as much as possible the parts in the neck. On raising his head a paroxysm of dyspnœa is almost sure to come on, threatening instant suffocation. The elevator and depressor muscles draw the trachea and larynx up and down with a rapidity and a force which may bring the cricoid cartilage within half an inch of the sternum. The great thyroid veins which descend in front of the trachea are sure to be distended. There may be a middle thyroid artery. In children two lobes of the thymus may rise in front of the trachea as high as the thyroid gland, so that the whole length of the air tube may be covered by important parts which ought not to be divided. Considering all these possible complications, the least difficult mode of proceeding is to open the trachea just below the cricoid cartilage, and if room be requisite, to divide the cricoid itself."

The conception of this series of articles is a very happy one, and capable of indefinite elaboration. It will be observed the author does not confine himself to the anatomy alone. The hints in treatment scattered here and there are valuable and recognized as coming from a practical hand. But when he asserts "in the language of transcendental anatomy, we may say that the central tendon of the omo-hyoid represents a rudimentary cervical rib," and that "its posterior belly is analogous to a serration of the serratus magnus; its anterior belly to a sterno-hyoid," we are reminded that the observation of the transverse processes of the cervical vertebræ being the *true* rudiments of cervical ribs, has been confirmed; and are inclined to believe that no "transcendental" anatomist will accept the language of the author as a part of his own.

Art. XXIII. *Note on the Termination of the Second Case of Poisoning by Mercuric Methide.* By GEORGE N. EDWARDS, M. D.

This article is the continuation of a case reported vol. i. p. 144, and is chiefly devoted to a description of the post-mortem examination.

Art. XXIV. *On an Operation for the Relief of a Stricture of the Urethra.* By Geo. W. Callender.

The author, following a suggestion of John Hunter's, performed a perineal section in the following manner: The bladder having been previously punctured in the supra-pubic region for retention, a curved catheter was introduced through the opening and guided into the urethra from behind forwards to the point of stricture. A straight catheter was then passed to the contracted portion from in front, and the line of incision made between the extremities of the two instruments. The patient was discharged cured in about three months after operation.

Art. XXV. *On the Value of Palpation in the Diagnosis of Tubercular Disease of the Lungs.* By Geo. N. Edwards, M. D.

Dr. Edwards presents a table of fifty cases of phthisis in which the locality of the deposit was recognized by him by palpation alone, the assertion in each instance being afterwards confirmed by others by auscultation and percussion. The author concludes by saying: "It is almost impossible to express in words what is the difference between the sensation imparted by that portion of the chest situated over tubercular and that over healthy lungs; perhaps it may rather be described as a want of elasticity than anything else. I only know that it exists, and may be easily perceived by any one who will examine a sufficient number of cases."

Art. XXVI. *Extracts from the Statistical Report of the Hospital for the Year* 1865.

This is an elaborate statement of the number, character, and results of treatment of the diseases and injuries admitted during the year. Tables 4 and 5 are particularly valuable, showing as they do the proportion of "diseases occurring within the hospital in patients admitted for other causes in the surgical wards," as well as "cause of death in fifty patients after operation." Among the latter we notice a death from pyæmia following lithotrity. H. A.

Art. XIX.—*Proceedings of the American Pharmaceutical Association at the Fourteenth Annual Meeting, held at Detroit, Mich.*, August, 1866. 8vo. pp. 316. Philadelphia, 1866: Merrihew & Son, Printers.

Like its predecessors, this volume is a record highly creditable to the "American Pharmaceutical Association," as well as to the profession of pharmacy in the United States. The phonographic report of the proceedings at the several daily sessions of the annual meeting is interesting and instructive. The reports of the committees manifest a frank truth-seeking and truth-exposing disposition which inspires confidence in their accuracy. The report on the progress of pharmacy includes a list of publications, in the English, German, and French languages, connected with the subject, brief notices of processes, apparatus, &c., as well as of articles of materia medica, vegetable, animal, and inorganic, with modified and novel chemical processes, so that we have a condensed summary of whatever has been offered to the attention of "pharmacists" during the year preceding the date of the report. The volume contains also ten "special" and twelve "volunteer" reports and essays. Answers to queries propounded at previous meetings are termed special reports. For example: "*Query* 30th. What is the most perfect and reliable process of manipulation to produce liquor ammoniæ acetatis pure, and in a neutral or slightly acid condition?" The answer is by Wilson H. Pile, M. D. In order to avoid the objections to the usual practice of dispensing ammoniæ acetatis liquor by apothecaries, he proposes that solutions of sesqui-carbonate of ammonia and of acetic acid of proper specific gravity, shall be kept separately prepared in the shop. "The solutions keep well, and it is only necessary to mix them in equal quantities to produce an effervescent draught of neutral acetate of ammonia, retaining the free carbonic acid, so desirable as a remedial agent."

Mr. James T. King, of Middletown, N. Y., contributes a short paper—Metallic Lead in Flour—in which he states that during February, March, and April, 1865, about 250 persons within a radius of five miles were affected with symptoms of poisoning by lead, which was traced to repairing with metallic lead the burr-stone on which the flour used by the patients had been made.

The "Proceedings" of the annual meetings of the "American Pharmaceutical Association" ought to be included in the library of every "pharmacist" who desires to keep pace with scientific progress; we may add, practitioners of medicine generally cannot consult the work without adding items of practical value to their stock of knowledge. We commend this volume to the attention of both physicians and apothecaries, or, as it is proposed to style them, pharmacists.

W. S. W. R.

ART. XX.—*Clinical Histories with Comments.* By HENRY DAY, M. D., Member of the Royal College of Physicians; Physician to the Stafford County Infirmary. 8vo. pp. 254. London, 1866.

THE work of Dr. Day is composed of short clinical histories of various diseases, with comments in respect to certain points of their etiology, diagnosis, or treatment. These histories are not presented by the author as claiming "the highest position in medical research." They are in general based upon too limited a number of observations to warrant any such claim being set up in their behalf. All that the author has aimed at is, through the pages of the work before us, "to speak to his brethren in common language" on subjects of common interest. He has not presumed to teach them, but has endeavoured in a humble way to quicken their interest in the subjects embraced in his clinical histories, and to elicit from each whatever knowledge he may possess in respect to them. The same plan is pursued as marked the earlier steps in the history of medicine, whether as a science or an art. This plan is one of great simplicity, and must continue to be pursued so long as it shall be esteemed desirable for the materials adapted to advance our knowledge of medicine derived from the experience and investigations of the individual members of our profession shall be promptly incorporated with the general fund of medical knowledge.

In the several sections, or histories, as the author styles them—each one of which is devoted to a single subject—we find nothing that is absolutely original, though much that is interesting. It appears to us that the author has added but little to our knowledge of the especial subjects of which the work before us treats.

It is scarcely to be supposed, however, that, in a collection of clinical observations related with the same candor and honesty of purpose as are those before us, there should not be found some useful facts—some instructive hints, which if not, strictly speaking new, are, at least, adapted to illustrate, verify, and enforce truths already known. It is certain that many such facts and hints occur in the Clinical Histories of Dr. Day.

The first history treats of "*Cerebro-Spinal Meningitis.*" Showing its identity with the so-called spotted fever, and discussing its general pathology, and its supposed causes, with an effort to remove the uncertainty which surrounds the question of its treatment. We cannot see, however, that the histories adduced by Dr. Day throw any new light upon the nature of the disease or upon its management.

The second history is devoted to a description of a very interesting, and rather unique, so far, at least, as concerns its termination, case of "*Ovarian Disease.*" The ovarian cyst burst and its contents were discharged through the stomach, the patient finally recovering completely.

A married woman, 43 years of age, the mother of many children, was admitted into the Stafford Infirmary, February 3d, 1862. She was suffering under ovarian dropsy, which, as she stated, had commenced four years previously. She presented a jaded and cachectic appearance. Her lower limbs were œdematous, the abdominal walls were enormously distended, the ovarian tumour, which evidently contained a fluid, seemingly pressed upon them throughout their entire extent. The surface of the tumour was uneven and marked by many sulci or grooves. The bowels were obstinately costive. At intervals there occurred paroxysms of severe pain. No appetite; sleep uncertain and disturbed; breathing difficult; pulse small, weak, rapid—about 98; menstruation irregular, the discharge of a somewhat offensive odour. *Diagnosis;* multilocular ovarian tumour, with considerable adhesions. The patient was decidedly opposed to the performance of an operation. She had chlorodyne given her at night, which soothed her sufferings. The costiveness was relieved by mild purgatives and simple enemata. The diet directed was any her stomach, which was very irritable, could retain and digest. No trace of albumen in urine. It was high-coloured, of a specific gravity of 1.025; reaction acid; deposited large quantities of lithates. The patient continued, with little change, excepting increased weakness, until March the 8th, when, during the day, she complained of great pain in both the abdominal and epigastric regions; this she had previously suffered. Early on the morning of the 9th she became very sick with aggravation of pain. She soon began to vomit large quantities of a thick glutinous fluid, darkish green in colour, exactly similar to that which follows the tapping of an ovarian cyst. The vomiting continued for twelve days, giving discharge to not less than two or three gallons of the fluid described, in which was occasionally detected a flaky kind of matter, not unlike coagulable lymph, and sometimes small masses of more solid matter. The stomach not retaining any food, the patient was nourished by means of beef-tea injections, &c. To allay the sickness of stomach, dilute hydrocyanic acid with saline effervescents, &c., was prescribed, but without any good result.

As the vomiting continued the circumference of the abdomen diminished rapidly. On the 21st the vomiting ceased, and a little food was retained on the stomach. Up to the 27th she gradually and steadily improved. She took light, easily-digested food with a relish; slept tolerably well; expression of countenance greatly improved; pulse became gradually stronger and firmer; bowels acting without the aid of aperients. Improvement continued until the 28th, when the patient was attacked with double pneumonia; the inflammation chiefly confined to the lower lobes of the lungs. Cough incessant with copious expectoration; sputa rust-coloured; pulse weak and rapid. She was placed for many hours on large doses of ammonia, plenty of beef-tea and wine. No improvement ensuing, her chest all round was wrapped in a large warm poultice of flaxseed meal. The relief afforded by the poultice was marked and prompt. The patient fell asleep soon after it was put on, and slept for several hours. The poultice was continued for several days. From this time she daily improved. She was discharged convalescent May 1st. There was still a tumour on the right side, midway between the umbilicus and groin. It was of the size of a large orange, with an irregular surface, and painful when pressed on. The legs were still slightly œdematous. She attended as an out-patient for about two months; both the œdema and the remains of tumour constantly diminishing. It was ascertained in 1864 that she had recently died—not from ovarian disease but from fever.

The lymphlike matters discharged by vomiting in this case, when examined by the microscope, were shown to be structureless in appearance; there was nothing discovered resembling an acephalocyst. The fluid was loaded with albumen, with a specific gravity of 1.022—sometimes much higher. It was at first too thick to allow of the ready use of the hydrometer.

In the third history, the subject of which is "*Secondary Cancer of the Lung,*" the details are given of a series of experiments performed by Dr. Richardson, to determine whether the fluid expressed from cancer growths is capable of producing locally cancer when introduced in the healthy tissues of animals. The experiments were communicated by Dr. R. to the Medical Society of London, during its session of 1859-60, but never before published. The experiments prove, so far, at least, as negative evidence can prove, that cancer cannot be introduced into the human system, nor propagated from one portion of it to another simply by inoculation.

The fourth history is on the "*Treatment of Acute Rheumatism by Blisters.*" After the relation of six cases in proof of the efficacy of this plan of treatment, Dr. D. remarks that, after the proof he has had he cannot hesitate to express his belief that blisters will be found a most valuable adjunct in the treatment of a most troublesome and for the most part painful malady. In every case he has tried them the relief from the rheumatic pain has been immediate and most commonly permanent. In no case has peri or endocardial inflammation supervened. None of Dr. D.'s cases, however, were treated by blisters alone. He is convinced that every case of acute rheumatism should be treated on its own merits. Each case may require some modification in its management, and *special* remedies must all be used to some extent in an empirical manner until the special pathology of rheumatism is better understood. In the words of Dr. Fuller, "What we want is far less the discovery of any new remedies, than the adaptation of our present remedies to the exigencies of each case."

The only inconvenience that has been observed to result from the blistering treatment has been the occasional length of time which elapses before the vesicated surfaces heal.

The effect upon the urine of blistering is very marked, we are told. However acid before the blisters are applied, the urine becomes, speedily after their application, either alkaline or neutral, and this too, in cases where no alkaline substance had been administered.

On "*Rheumatic Fever without Pain*" is the subject of history or section fifth. Whether the cases detailed by Dr. D. under this head were rheumatic in character, it is very difficult to decide with certainty, inasmuch as there is as yet no positive agreement among physicians as to the true nature and diagnosis of rheumatism. To call them cases of rheumatic fever is certainly a misnomer; they present none, so far as we can see, of the pathognomonic signs of fever. Dr. D. concludes his remarks upon painless rheumatic fever by expressing his opinion that a close attention to the state of the spinal nerves in both acute and subacute rheumatism, coupled with a carefully conducted experimental inquiry, wound tend, ere long, "to show that this very common and very intractable malady is infinitely more dependent on primary changes in the nervous system than has ever hitherto been imagined by any excepting our American medical brethren." The dependence of some, at least, of the forms of disease that have been arranged under the vague term rheumatic upon certain morbid conditions of the spinal cord, cannot, we think, be any longer called into question.

In the sixth history, Dr. D. has attempted to show that "Chorea" is in many cases dependent on spinal irritation. The correctness of this position, though far from being proved by the observations of Dr. D., is nevertheless, we feel assured, a perfectly tenable one. As the author well remarks, between the numerous cases of chorea in which the irregular muscular movements are easily arrested, and those in which they are persistent and the disease often terminates unfavourably, there must necessarily be either the operation of a different cause, or the action of the cause, if the same, must be modified by some peculiar conditions. Dr. D. believes that in the milder and more controllable forms of chorea there are merely functional disturbances, the result most probably of sympathy without any active inflammatory action, while in the graver attacks there is *always* going on a local lesion of a severe character. True, the former might possibly run on into the latter; the experience of Dr. D. would almost lead him to say that such is rarely the case. In the cases he has seen there has always been a very wide difference in the *kind* of spasmodic action in the two forms of the disease alluded to. In the milder and sympathetic state—that of mere functional disturbance, the movements, although certainly spasmodic, have been *grotesque* in their form, giving an impression that they were rather exaggerated natural motions, to a certain extent controllable, whilst in the severer forms all control is evidently gone, and the spasmodic affection seems to partake of the nature of tetanus.

From history or section seventh, the subject of which is "*Pelvic Hæmatocele,*" we copy the following remarks: "There is great diversity of opinion as to the propriety or not of puncturing in a case of hæmatocele. Some are disposed to puncture if the tumour be extra-peritoneal, and to adopt a different or rather an opposite course if it be intra-peritoneal. But the cases are many in which you cannot possibly tell which of the two positions the tumour occupies. Others are not inclined to resort to the trochar unless *compelled* to do so by the urgency of the symptoms. This, I own, is my feelings on the subject, and upon it I acted in E. P.'s case. With the result I had no reason to be dissatisfied."

We might run through the remaining six histories, on epilepsy from peripheral irritation; and from hepatic congestion; on alternating leucocythemia and leucocythemia generally; hysterical facial paralysis; and cardiac apnœna—formerly called angina pectoris. From each we might perhaps cull an observation which, if not precisely new, is worthy of especial notice. From the foregoing notice of the work, however, our readers will be able to form a tolerably correct idea of its character, and of the nature and extent of the author's contributions to the general fund of medical knowledge. D. F. C.

ART. XXI.—*Contributions to Assist the Study of Ovarian Physiology and Pathology.* By CHARLES G. RITCHIE, M.D., Fellow of the Royal Medico-Chirurgical Society, Member of the London Obstetrical Society, Corresponding Fellow of the Edinburgh Obstetrical Society, etc. 8vo. pp. 208. London, 1865: John Churchill, and Sons.

IN this excellent monograph, Dr. Ritchie maintains that active changes are incessantly taking place in the ovary from the earliest to the latest period of life; that both before and after puberty, during pregnancy and lactation, during amenorrhœa, and even after the final cessation of the menses, vesicles are constantly being formed in the ovary, and constantly perishing. He endeavours, also, to show that ovarian cysts may be produced in many different ways, each morbid process being a modification of some physiological action occurring normally in the ovary; that these cysts are occasionally "moles" or ova which have undergone a certain amount of development; and that dermoid cysts are certainly derived from an ovum, and have little in common with that form of subcutaneous dermoid cyst not unfrequently met with in the region of the eyelids.

The first chapter contains an interesting historical sketch of the progress of embryology from the remote time of Hippocrates down to the year 1844. The next two chapters consist of a reprint of a paper on the physiology of the human ovary, contributed originally to the *London Medical Gazette* of 1843–45, by Dr. Ritchie, of Glasgow, the father of our author.

The following conclusions arrived at, by the senior Dr. Ritchie, in the course of his researches, are also strongly advocated by his son.

"1. The Fallopian tubes of the infant, and of the child before puberty, are perfect in their structure, although their patency is more or less obstructed at birth by the presence in them and in the uterus of a tenacious glue-coloured mucus.

"2. The ovaries of new-born infants and children are occupied, sometimes numerously, by Graafian vesicles or ovisacs, which are highly vascular as early as the sixth year, and vary in size from the bulk of a coriander-seed to that of a small raisin, in the fourteenth year, at which time, also, they are filled with their usual transparent granular fluid.

"3. The Graafian vesicles contained in the ovaries prior to menstruation are found, as they also are in every other period of life, in continual progression towards the circumference of the glands, which they penetrate, discharging themselves by circular-shaped capillary-sized pores or openings in the peritoneal coat; the presence of the catamenia being thus no indispensable prerequisite to their rupture.

"4. The establishment of menstruation does not necessarily give rise to any immediate modification in the manner in which the ovisacs are discharged, or in the subsequent change which these bodies undergo; but in some cases the conditions which obtain in the period before puberty are extended for a time, into that of menstruation.

"5. The ovisacs of the human female do not require the establishment or presence of menstruation for their development or rupture. Vesicles of adult size may exist and be discharged about the age of puberty as also at other periods of life, independently of menstruation; and this state may be present in its normal form for at least eight consecutive periods, without a vesicle being ruptured, unless after the manner, and with the phenomena which occur in childhood.

"6. In early infancy, extreme old age, and long-continued organic disease, the ova are minute, transparent, and structureless cells; and in advanced childhood, soon after the critical age, and during pregnancy and lactation, they are more or less organized, larger, and in the latter state are often so well maturated, that about one-third of the renewed pregnancies of married women take place while they nurse.

"7. In children and others in the circumstances now mentioned, the exercise of organic power which occasions the secretion and extrusion of ova, is attended also by that of an opaque mucous fluid in the tubes and uterus; but on the attainment by the female of maturity, and onward to the period of critical life (when the animal powers become again diminished, and the calibre of the arteries reduced), the ovarian orgasm, like many other vital actions, undergoes periodical augmentations of power, during which, unless when prevented by the disturbing influence of other functional processes or by disease, it extends to the nervous and vascular tissues of the uterus, and gives rise to the formation within this viscus of decidual vessels, which exude lymph and red globules, the latter being evacuated, mixed with watery fluid, mucous matter, and some of the salts of the blood, in the form of menstruation.

"8. That the periodical congestion or increase in size of the ovaries before and at the usual menstrual terms is not caused by the presence or bursting of ripe vesicles, is plain from the consideration that the ovaries are often crowded with such, some of which also occasionally give way, and empty themselves by capillary-sized openings in the surface of the glands in women who have never menstruated; and in others who have ceased to menstruate, one and two large and fully-developed vesicles are frequently seen.

"9. The elimination of ova, and the process of menstruatian, are correlative effects of the vital powers of the ovaries (just as the secretion of mucus, and of gastric juice, and the chymification of the blood are those of the stomach); and to suppose the rupture of the Graafian vesicles to be the cause of the menses, is to mistake a frequent association, and, to some extent, effect for a uniform cause.

"10. The principal use of menstruation is, in regard to the ovary, to provide an accessory by which the maturation of its vesicles, and the absorption of their peritoneal and tenacious proper coats, and their extension generally, may be promoted throughout the child-bearing period of life; and, in reference to the uterus, to furnish a nidus within its walls by which the ovum may be entangled, retained and nourished.

The last two chapters of the work before us are devoted to ovarian pathology.

J. A. M.

ART. XXII.—*Temperature in Acute Disease.*—Being a thesis read for the Degree of Doctor in Medicine, before the University of Dublin, June 26, 1866. By THOMAS ARMETRIDING COMPTON, M. D.; B. A. Corpus Christi College, Cambridge, &c. &c. &c. 8vo. pp. 22, with 9 diagrams. London: John Churchill & Sons, 1866.

THE indefatigable labours of Prof. Wunderlich, of Leipsic, with the clinical thermometer and the admirable papers by Drs. Aitken, and Sidney Ringer, have attracted much attention recently, to the value of that instrument in diagnosis and prognosis in certain diseases.

Dr. Compton has investigated this subject with much industry, and his results are of great practical interest. His thesis is divided into two parts. In the *first* he treats of the practical value of accurate daily observations on the temperature of the body in acute diseases; the *second* is devoted to the consideration of the course of temperature and pulse in typhus and typhoid fevers, and some of the points of difference between these two fevers shown thereby.

Dr. C.'s general conclusions have been arrived at, after a careful study of some 125 cases taken by himself during two years at St. Bartholomew's hospital, and also of seventy-five others taken in the same hospital by Dr. Warter. The total number of cases in which the temperature and general symptoms have been watched and recorded daily throughout their course, amounts to 200, of which sixty are typhus, thirty typhoid, twenty pneumonia, fifteen scarlet fever, and the remaining seventy-five comprise cases of febricula, acute rheumatism, erysipelas, chorea, acute tuberculosis, &c. The total number of observations in these cases, and in others in which only one temperature has been recorded by Dr. Warter or himself, probably exceeds 5,000.

The observations on temperature were taken with the thermometer in the axilla once daily, but always at nearly the same hour—about two o'clock P. M., at the same time noting the state of the pulse, skin, respiration and general symptoms.

In speaking of normal and abnormal temperatures, Dr. C. states that he considers the approximately normal temperature of the axilla in a healthy adult to range between 95°.5 and 98°.5 Fahr., the most common temperature being probably 97°.4 Fahr., which is one degree less than that usually considered as the normal one.

The propositions which Dr. C. wishes to establish are the following:—

"1st. That a continued daily temperature of 99° Fah., and upwards, indicates an unhealthy condition, and occurs in every case of acute disease. As I have never met with one case in which such a temperature was present, under normal conditions, in a healthy adult, and as every case of the 200 taken exhibits this state of temperature, the proposition may be considered to be proved.

"2d. That any one observation of a very high temperature (such as 105° Fah.), in any case in which the general symptoms do not appear of any particular severity, should lead to a very attentive re-examination, and suggest a very careful watching, especially if occurring in a non-diagnosed case; such a temperature being present only in severe forms of any disease.

"3d. That the thermometer is of great use, as a means of diagnosis in those cases, which frequently present themselves, of general *malaise*, often accompanied by a history of rigors, loss of sleep, &c.; such symptoms being due either to the commencement of some acute disease, or merely to some gastric or uterine disturbance of a temporary character.

"In these cases it is often at first impossible to decide, judging only from the pulse and general symptoms; but if the state of the patient be due to the more serious cause, we shall invariably find an abnormal temperature; and on the other hand, if due to any other, a normal temperature, will be often met with, frequently accompanied by a very rapid pulse. I have never met with one case in which, the temperature being normal, any acute disease afterwards developed itself.

"4th. That the temperature in every disease has a tendency to run a peculiar course, and has a certain range of altitude, a knowledge of which course and range is of great value as an assistance to us in diagnosis and prognosis.

"In connection with this proposition I should observe that I have not found the temperature in acute disease to be perceptiby affected by the season of the year, at which the disease may have occurred, although the temperature of the wards during the year has varied to a considerable extent.

"Again, if cases of similar severity at different ages be compared, the altitude attained by the temperature in any disease does not appear to be influenced by the age of the patient, although 'the normal' is generally reached somewhat earlier in children than adults.

"5th. From the last proposition it follows, that the same altitude of the thermometer attained at one period of any disease is not of the same importance as the same height reached at another time in the same disease.

"Thus, in typhoid fever, a temperature which has been rising for two or three days, reaches perhaps 104° Fah. between the seventh and fourteenth days, without causing any anxiety; whereas should the same phenomenon occur about the twenty-eighth day, a fatal termination might probably be expected.

"And again, the actual altitude attained on a certain day in one disease is not of the same importance to our prognosis as the same height reached on the same day in another disease. Thus, a temperature of 104° Fah. in erysipelas is very common during the first week, and need not give rise to any alarm: but should such occur at the same date in acute rheumatism I should consider it of much more importance.

"6th. That although, in all diseases, a high range of temperature generally indicates a severe case, with a slow convalescence, and a low range usually occurs in a mild case, and is followed by a rapid convalescence; yet there is no actual temperature in any disease which necessarily foretells a fatal termination. Thus I have registered 105°.6 Fah. in a severe case of typhus ending favourably, 106°.3 Fah. in erysipelas, 105°.3 in typhoid; and each of these temperatures was the highest I ever took in the respective diseases.

"I certainly once registered a temperature of 107°.2 Fah., in a fatal case of pneumonia; but the great majority of fatal cases generally, although always exhibiting abnormal temperatures prior to collapse, have by no means had any extraordinarily high ranges. I believe that an abnormal course of temperature is more often the precursor of a fatal termination than any universally high range.

"7th. That in the majority of cases a rise of temperature is contemporary with a rise of pulse, but that on the other hand there appears generally to be but little connection between temperature and frequency of respirations.

"The alteration in the pulse with a change of temperature is often not a proportional one, and may not take place at all unless the variation of temperature be as much as 2° Fah.

"8th. That where the temperature and pulse together do not coincide with the general symptoms, the two former may be generally relied on as to the actual state.

"9th. That where the temperature and general symptoms agree together, but do not coincide with the state of the pulse, the two former may generally be relied on as to the actual state.

"Thus in cases of hysteria, and in cases of excitable persons approaching convalescence after fever, we often suddenly get a very high pulse, which is sometimes continuous for days, although the temperature and general symptoms are neither of them adverse.

"10th. That in those cases in which the pulse and general symptoms remain the same, a moderate fall of temperature on one occasion is not to be relied on; but should such a fall continue in a moderate and gradual manner, for some days, and at such a period when a fall was to have been expected, the temperature may then be depended upon. Severe cases of typhus, towards their close, often give examples of this sort.

"In those cases, however, in which the pulse continues frequent, and the general symptoms are severe and without improvement, a considerable fall of temperature (say 5° or 6° Fah.) is to be regarded with anxiety, being probably due to some internal hemorrhage, or to the commencement of a state of collapse.

"11th. That in those cases in which the pulse and general symptoms continue the same, being the one frequent and the other severe, a continuous rise of temperature for some days, occurring at a period of disease at which some improvement might generally be expected, is usually the precursor of a fatal termination.

"Thus, in a case of typhoid fever, terminating fatally on the thirty-sixth day, the pulse and general symptoms continued without change until the thirty-fifth day; the former having stood at 92 on the twenty-ninth day, remained steady and rather below that frequency until the thirty-fifth day, when it suddenly rose to 124. The temperature, however, rose continuously from the twenty-ninth day, nearly a degree a day, until it stood 5° higher on the thirty-fifth than on the twenty-ninth day—the height registered on the thirty-fifth day being 104° Fah.

"12th. That although it is possible that the state of the temperature alone in acute disease may, perhaps, hereafter prove to be the one safest symptom to rely upon if taken by itself (and I believe it is at present, at least, equal to the state of the pulse, and of greater value than this certainly, if only its frequency be taken into account), yet the temperature must be considered merely as an aid, and all other symptoms must be carefully examined into, as it is on comparison with these that its greatest value is always to be found."

Dr. C. sums up the differences most frequently observed between typhus and typhoid fevers, so far as their pulses and temperatures are concerned, as follows:—

"1st. The maximum temperature attained during the course of either disease, about 2 P.M., is somewhat lower in typhoid than in typhus fever, but a continuous abnormal temperature is of much longer duration in the former than in the latter.

"2d. The defervescence of typhus is regular and continuous, the temperature falling generally about a degree a day, until the normal is reached; whereas in typhoid, the fluctuations from day to day are considerable, and the fall is not a continuous one daily.

"3d. There is a great tendency in typhus to attain certain temperatures, and to reach certain points in its course, on certain fixed days. Thus, in the great majority of all cases, a temperature of about 104° Fah. is met with on the seventh day; in a very large percentage the maximum is reached on the seventh or eighth days; 'the normal' is generally attained, in mild cases, on the twelfth or thirteenth days; and in more severe ones between the fifteenth and eighteenth days.

"In *typhoid* there is no particular temperature generally arrived at on any one day; the maximum may be reached at any time between the seventh and twenty-first days; and 'normal' is attained, in mild cases, between the fifteenth and twenty-first days; whilst, in the more severe ones, it may be attained on any day between the twenty-fourth and thirty-fifth.

"4th. The pulse is generally less frequent in typhoid; and although in both fevers the pulse usually fluctuates with the temperature (about five beats of pulse corresponding to each degree of alteration in temperature), the frequency of the pulse in the two, for the same degree of altitude, is different.

"Thus, with a temperature of 100°.5 Fah., we generally find an average pulse, of about 105 in typhus, but of only 95 in typhoid, and so on; at each degree the pulse being about ten beats more frequent in typhus than in typhoid. Moreover we sometimes meet with a case of typhoid fever in which the pulse very slightly exceeds 'the normal' throughout, but such a case I have not observed in typhus.

"5th. In typhus the temperature reaches normal two or three days before the pulse, and the general symptoms often continue severe several days after the pulse and temperature are both normal. In these cases, however, if the defervescence has been regular, and has occurred about the usual period, the case will terminate favourably, notwithstanding the often very unfavourable condition of the patient.

In typhoid, on the other hand, as I have before mentioned, the temperature keeps up several days after the general symptoms have been considerably improved, and we must look, with doubt rather than otherwise, on cases in which this rule appears about to be broken—that is, on cases in which the general symptoms continue severe, although the temperature is but little, if any, above 'the normal.'

"6th. Relapses of typhoid have occurred in 12 per cent. of all cases, and in these the temperature ran a somewhat similar course as in the former attack, although 'the normal' was attained at an earlier date.

"Relapses of typhus, with a corresponding recurrence of abnormal temperature, have never been met with, although the number of cases of typhus under observation has been double that of typhoid."

Appended to this brocure are nine diagrams, showing the variation on different days of the temperature, pulse, and respiration in cases of pneumonia, acute rheumatism, facial erysipelas, tonsillitis, scarlet fever, mild and severe form of typhus fever, mild and severe form of typhoid fever.

ART. XXIII.—*Sobre Alguns Symptomas da Diabete. Lição Clinica Feita na Escola de Medicina de Lisboa.* Pelo Dr. ABEL JORDAO, Lente na Mesma Escola. 12mo. pp. 13. Lisboa, 1866.

On some Symptoms of Diabetes; a Clinical Lecture delivered in the Medical School of Lisbon. By Dr. ABEL JORDAO, a Professor in the School.

We propose to lay before our readers a brief summary of this interesting lecture. Perpetua dos Santos, aged 24 years, the subject of this case, presents some symptoms worthy of especial notice, since little or nothing in regard to them is known. The patient having suffered some time from intermittent fever, immediately after the disappearance of the attack observed that appetite and thirst, until then normal, became excessively augmented. Diabetes followed the attack of intermittent.

Dr. Jordão says that this is not the first case in which he has seen diabetes developed after intermittent. In three patients he has verified this etiology of the complaint, and he refers to the *Acta erud Lipsiæ* of 1696, in which will be found a similar case reported by Scaramuci. There is then, he conceives, a relation of causality between these two morbid conditions, and that this is farther confirmed by physiological experiments.

During (Dr. J. says) attacks of intermittent, and following them, Mr. Bourdel de Vierzon observed the presence of sugar in small quantity in the urine, and he asks, "Why does such a symptom appear in intermittents?" The explanation is, according to Dr. J., easy, conceiving that intermittent attacks are irritations of the sympathetic nerve, followed by its unavoidable paresis. During its paroxysms there is hepatic congestion, similar to that which obtains from paralysis of the sympathetic in physiological experiments. In the experiments the appearance of glycosuria is constant; what wonder, then, that the same happens in the pathological case? Doubtless the mode in which these two phenomena are produced, are identical. Physiological experiments, compared with morbid facts, give us the key to the etiology of certain diseases. Formerly the case was inexplicable; now, according to our author, its explanation is found in the progress of physiology. In intermittents the sympathetic is paralyzed; the same occurs in diabetes. In the first the phenomenon is temporary, in the second almost continuous; in both cases sugar appears in the urine—in one temporarily, in the other continuously. Intermittent, if we may be allowed the term, is the microscopic *photograph* of diabetes.

If these reflections are not sufficient to produce conviction, regard the third case of my clinic, in which diabetes was consecutive to intermittent.

Let us now (says Dr. J.) examine some of the symptoms. Early in the disease the patient, besides attacks of hæmorrhoids from which he then suffered, complained of having lost blood by the rectum months after the appearance of diabetes. These rectal hemorrhages often depend on hæmorrhoids; at other times they seem to be essential. The first condition is that of our patient. If we had not scrupulously observed this symptom, as we have in different diabetics, we might say, as all physicians do, that the diabetes in the present case was the result of suppression of the rectal hemorrhage. The ancients had observed the fact, as we have done, but they neither verified nor appreciated it. I have seen individuals with the appearance of good health, suffer from rectorrhagia, in whom, subsequently, the hemorrhage being suppressed, decided symptoms of diabetes appeared, and hence the effect was attributed to this cause. This occurrence is sufficiently frequent, but, since in very rare instances of diabetes it is absent, it is believed its true interpretation is other than that accepted up to the present time.

Physicians who place rectorrhagia in the etiology of diabetes are deceived, because they are not aware that the appearance of good health and fatness are almost always present in the first period of the disease. They therefore think that diabetes is not the cause of the hemorrhage, and that the latter precedes it. I repeat, then, that diabetes is anterior to this symptom, which is an effect, and not a cause of the disease.

Besides the cases in which this phenomenon is a consequence of hæmorrhoids as in the present instance, there are others of true enterorrhagias which I call *essential*, in opposition to those I have indicated. I do not know that they are in fact essential; it is possible, and perhaps even probable, that they proceed from varicose dilatation of the intestinal veins. I do not attach much importance to this term. The idea which may be formed in this respect is, that in this disease there is a hemorrhagic tendency, and that the obstruction of the circulation through the liver facilitates these varicose dilatations of the intestinal veins, as happens in the gouty, who almost always suffer from hæmorrhoids. As these dilatations form in the inferior extremity of the rectum, or higher up, we have the two species of rectorrhagias. It is proper to say, however, that in rare cases I believe that the hemorrhagic diathesis alone will explain the fact. This tendency to hemorrhage really exists, I judge, only in the first period of the disease.

I have seen two instances of epistaxis in the beginning of the affection. Messrs. Kunkler (*Union Méd.*, 1861, p. 137) and Leudet also mention two cases; and Frank reports a case in which is pointed out the frequency of the phenomenon *before* the *recognition* of the disease—that is, at a period when the existence of the diabetes might be supposed, since, when it comes to be diagnosticated, it is already much advanced.

There are other phenomena in the early stages of diabetes, which also prove the presence of the diathesis. The facility with which blood flows from the gums in consequence of any mechanical irritation—as, for example, the removal of teeth; the taste of blood, almost always accompanied by a light, rose-coloured saliva, which diabetics experience on rising; sanguinolent pustules which appear on the skin, as observed by Marchal de Calvi (*Moniteur des Hôpitaux*, Sept. 8, 1853), and the slight sub-epidermic hemorrhages noted in different parts of the body, chiefly in the hands and arms, are more than sufficient proofs. This last circumstance is not noted by authors, but it is certain that beneath the epidermis small, isolated, rose-coloured spots, of two or three millimetres in diameter, may be seen, in which there are small varicose vessels, and around them extravasated blood; in time these spots become yellow, leaving the vessels perceptible, and finally they disappear, leaving the vessels still visible for a period.

At times hemorrhages are observed in the retina. Messrs. Follin and Lècorchè suppose that they are manifest only when diabetes is complicated with albuminuria, but our distinguished ophthalmologist, M. Mendes, has seen a diabetic with this lesion, who was free from albuminuria.

I insist upon this relation between rectal hemorrhages and the particular hemorrhagic diathesis in diabetes, because I believe I am the first to point it out. I have alluded to the healthy and plump aspect of diabetics in the first stage of the complaint; and now is a fitting occasion to say something in relation to it. Our patient seems not to verify this statement; nevertheless I think proper to discuss the point to enable you to avoid many errors of diagnosis. When diabetes is chronic in its progress, diabetics grow fat, and the reason of the phenomenon is easily understood. When we wish to fatten an animal, we give it feculent and sweet substances in abundance. Through such means we succeed, in proper time, in fattening domestic animals—the hog, for example. The same occurs in the diabetic, who, in the beginning, has an excess of sugar and carbonaceous substances in the blood, which the organism cannot burn, but is still able to convert into fat. This fact has given rise to an error on the part of Messrs. Landouzy and Marchal de Calvi. These distinguished physicians suppose that the *robust, fat* constitution, is a cause of diabetes; but, I think, erroneously. A robust, adipose constitution is not a cause, but an effect of the complaint. I have seen some cases of lean individuals attacked with diabetes, who commenced to fatten, and in a short time presented a fair aspect of health. During the first period of diabetes, patients entirely deprived of feculents become lean, but on allowing them a moderate use of these substances, they again acquire fat.

These ideas, which I presented in 1864, have just been confirmed by Mr. Harley, of London. This aspect of health in such patients often diverts the attention of the practitioner; therefore it is always prudent to examine the urine of individuals who are in this condition, and at the same time complain of want of strength inconsistent with their good appearance.

Observe the leanness of this patient, chiefly of the arms and belly. You see there is no relation between the leanness of the arm and of the forearm, nor between the belly and the rest of the body. In these regions there is muscular atrophy; in the arm you almost touch the humerus, but in the forearm the muscles are distinctly felt; in the belly the intestines are beneath the fingers, and, if attentively observed, their outline may be perceived through the abdominal parietes by their peristaltic motions. In this case there is not only an absence of fat, but also a want of muscular resistance to palpation. Although I have often observed this symptom, I find it nowhere noticed.

The intellectual lesions in this patient are quite curious. Perpetua dos Santos is extremely impatient—almost insupportable; weeps readily; often imagines that they seek to kill him, or that he is about to die; at intervals is truly delirious, destroying the bedding, having, on these occasions, tonic convulsions; at times vertigo is also manifest. These vertigos are not rare; Frank and others speak of them. The lesions of intelligence presented by this patient are characteristic, and sooner or later almost all diabetics are affected by them. Memory diminishes, cheerfulness is almost always lost, and individuals become sad and apathetic. I have seen many such instances. Irascibility is common; hallucinations and delirium, as seen in this patient, are more rare.

This case presents many and various nervous phenomena, neuralgic pains of the nucha and teeth, rheumato-neuralgic pains of limbs. Neuralgias are most frequent in the intercostal and sciatic nerves, but, in my opinion, the first are most frequent. A diabetic manifestation observed in this case is furuncles.

W. S. W. R.

ART. XXIV.—*A Treatise on Emotional Disorders of the Sympathetic System of Nerves.* By WILLIAM MURRAY, M. D., M. R. C. P. Lond., etc. etc. 8vo. pp. 118. London, 1866.

THIS is quite an interesting essay, and on a subject of no slight importance, whether considered in its relations to the prophylaxis of a very large class of diseases of every-day occurrence, or to the elucidation of their symptomatology and therapeutics when present.

The influence, either for good or for evil, that is exercised upon the different parts of the human organism by the emotions, passions, appetites, and desires, and the influence, on the other hand, which even slight abnormal conditions of the several organs exert over the emotions, appetites, and desires, has been recognized even by the non-professional observer, while it is a fact of which every intelligent physician is fully cognizant.

The influence exercised upon the emotions by disturbed states of the viscera is less patent to the public generally than is the influence exercised by the emotions upon the healthful play of the proper functions of the individual organs. From an ignorance of how much of mental suffering, of irregularity of temper and of eccentricity of character, is directly due to disordered conditions of those portions of the organism which are most under the dominion of the ganglionic system of nerves, the non-professional observer is constantly led into errors of judgment, too often attended by results the most mischievous.

While the great body of the medical profession are perfectly familiar with those disorders which usually accompany too violent, or otherwise disturbed conditions of the mind, but few of its members understand aright the manner—the physiological relationship by which this connection between mental disturbance and visceral disease is brought about. To explain the nature and the mechanism of such connection; to show that it is the result of a relation existing between the emotions and the diseased viscera, through the medium of the sympathetic system of nerves, is the leading object of the work before us.

The author has, it is true, attempted scarcely more than to furnish a mere leading outline of the subject. So far as it goes, however, the exposition of Dr. Murray is replete with interest. Pursuing a correct and well-defined line of investigation, he has prepared the way for a fuller and more complete examination of the subject. The more it is examined, the more important it will be found, whether viewed in reference to its medical bearings, or to its connection with the well-being and happiness of man.

Upon the effects which are exercised by emotions upon the cerebro-spinal system of nerves, Dr. M. has only touched slightly. His leading object throughout has been to select the phenomena which tend most to establish the position that the emotions affect the viscera, and the viscera the emotions, through the sympathetic system of nerves.

"To mark distinctly," he observes (Pref., p. vii.), "the line which separates the phenomena which are cerebro-spinal from those which are sympathetic is impossible. As, however, some broad distinctions can now be drawn between the functions of these two divisions of the nervous system, the time has arrived when we ought to avail ourselves of this knowledge in studying emotional disorders, so as to determine those conditions of the mind and body which attach themselves to the one or to the other system of nerves."

The treatise of Dr. M. is arranged in two sections. The first being devoted to a brief consideration of the physiology of the subject, and a general review of the influence exerted by the emotions upon the organs of the living body, through the medium of the sympathetic system of nerves; while, in the second part is presented a sketch of emotional diseases; in other words, of the "various mental effects produced by a diseased or exhausted condition of the visceral system of nerves, and the lesions of the viscera which lead to these morbid conditions of the nerves," followed by a chapter upon the prevention and treatment of these lesions.

Dr. M. has not attempted any elaborate classification of the emotions. After a careful effort, he found that it was not easy to allot to any one of the emotions, a series of effects sufficiently special and distinct to enable him to identify it by its action on the living organism. He has, consequently, indicated the character of the emotions under two heads. The first embracing those whose effects are pleasurable and beneficial. In the second, are included those emotions, the effects of which are painful and injurious. He has not, on this account, distinguished with much nicety between appetites, desires, emotions, passions, etc., each of these being held to be a variety of that flow of nervous force which is continually moving throughout the visceral regions of the body. Throughout, the terms expressive of the emotions are used in the sense popularly attached to them. This has been done, Dr. M. remarks, with the view of appealing to the common sense and experience of the reader, at the risk of incurring the severe criticism of the precise psychologist.

The emotional affections noticed in the second part of the treatise are, 1st. Those of the digestive organs, with a brief notice of hypochondriasis—imaginary diseases, etc. 2d. Those of the generative organs, including a sketch of nymphomania, masturbation, hysteria, miscarriage, etc.

The short chapter on treatment is replete with useful hints. It is far too concise, however, and too general in its teachings, to serve as a useful and satisfactory exposition of the therapeutical management of so large and important a class of diseases as are those attended with emotional distress.

We recommend the entire treatise to the notice of the American physician. From a careful perusal of it many a valuable hint will be derived—the development of which, by careful and repeated observation, cannot fail to supply an important want in our knowledge of the etiology and true character of many affections vaguely denominated nervous.

As a fitting close to this notice of a work which, short as it is, has interested us much, we present the following summary of the author's teachings in his own words:—

"*Proposition I.* The emotions injure the body most commonly by their effects upon the viscera, through the sympathetic system of nerves. *Proved*, *a*. By comparing the action of emotion on bloodvessels, non-striped muscles, and glands in *external* parts, with the established functions of the sympathetic nerves supplied to these parts, the two are found to be identical. *b*. Effects which cannot be produced by volition or cerebro-spinal nerves in these parts, are easily produced by emotion and sympathetic nerves; therefore, emotions act on those parts through the sympathetic system. *c*. Symptoms occur during the prevalence of strong emotion which indicate alterations in the internal viscera, similar to those which occur in external parts, viz., changes in the vascularity, secretions, and muscular actions of those viscera which are largely supplied by sympathetic nerves; therefore, from the nature of the effects produced, and from the relation of the parts acted on to the sympathetic system, it appears that emotion acts on these parts through the sympathetic system.

"*Proposition II.* There are disordered states of the viscera which powerfully induce those emotions which are injurious to the body. These effects are produced through simultaneous disorder of the sympathetic system. *Proved*, *a*. There are always accompanying depression of spirits, symptoms which depend upon disordered action of the sympathetic system, *e. g.*, 'the flushings of the change of life.' *b*. Morbid emotional sensations are always referred to those regions where the great sympathetic centres lie. *c*. The capability of a diseased organ to excite these emotions is in proportion to the supply of nerves from the sympathetic system. *d*. Treatment which addresses itself to the sympathetic system, and seeks to relieve it, *e. g.*, the application of compresses on the site of the solar plexus, is undoubtedly successful in dispelling morbid emotion. *e*. The above sequence of events cannot be accounted for by disturbance of the cerebro-spinal system only. We are, therefore, driven to the conclusion that, as the medium of communication between the cerebro-spinal system and the viscera, the sympathetic system also becomes the tract through which emotion finds its way to the viscera; and, conversely, it is the channel by which the viscera influence the emotions. When the sympathetic system itself is out of order, the emotions suffer with it." D. F. C.

ART. XXV.—*A Treatise on the Principles and Practice of Medicine, designed for the Use of Practitioners and Students of Medicine.* By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital College, &c. Second edition, revised and enlarged. 8vo. pp. 967. Philad.: Henry C. Lea, 1867.

THE extended Review of the first edition of this work which we published only nine months ago, renders a detailed account of the present issue unnecessary. It is evident that the judgment we pronounced has been ratified by the medical profession. Perhaps it would have been well had the author been allowed a longer time to weigh the suggestions made by his own reflections and by the Medical Press, before he issued the work a second time. But the exigencies of publishers are not always in accord with the judgments and desires of authors; the favouring popular wind which determines the former to spread all his sail, more frequently inspires the latter with a desire to trim his vessel as perfectly as possible, so as to make his voyage safe in its issue, as well as swift in its performance.

The present edition of Dr. Flint's Treatise differs from the first by the insertion of new matter more than by a correction of the old. Yet that the latter has not been entirely overlooked, the following quotation from the Preface will demonstrate. "The portion treating of Pyæmia has been rewritten; three affections, omitted in the first edition, have been introduced, viz., Pertussis, General Cerebral Paralysis, and Polyuria; Epidemic Cholera has been considered at greater length; the thermometric phenomena of disease have received fuller consideration, and, in connection with many affections, there has been added new matter, much of which relates to special therapeutics." It may be judged how substantial these additions are when we state that they amount, in all, to one hundred pages.

We are happy in being able once more to commend this work to the students and practitioners of medicine who seek for accurate information conveyed in language at once clear, precise, and expressive. A. S.

ART. XXVI.—*Injuries of the Spine. With an Analysis of nearly Four Hundred Cases.* By JOHN ASHHURST, Jr., M. D. 12mo. pp. 127. Philadelphia: J. B. Lippincott & Co., 1867.

FRACTURES and luxations of the spine are, as must be conceded by every surgeon, exceedingly difficult of diagnosis, uncertain of prognosis, and most embarrassing in their treatment.

This is owing, to some extent, to the very nature of such injuries; but a great deal is also due to the necessary imperfection of individual, and the extreme meagreness of accumulated, experience. To these injuries the first aphorism of Hippocrates has been always especially applicable: opportunity passes quickly, experience is hard to seize, and judgment difficult.

To show the rarity of such cases, we will notice that Malgaigne, whose researches were very extensive, collected only forty-five cases of luxations of every kind in the cervical region, and thirteen in the dorsal-lumbar. Of fractures, he says, they are very rare; but fourteen cases were observed at the Hôtel-Dieu in eleven years. At the Middlesex Hospital, according to Lonsdale, out of 1901 fractures treated during six years, only eight were of the vertebræ; and, at the Pennsylvania Hospital, the author of the work now before us found that in nearly 4000 cases treated during fourteen years, the vertebræ were affected in but twenty-four.

In this volume Dr. Ashhurst has presented to us the accumulated experience of the profession in this obscure class of injuries. By most laborious and well-directed research he has succeeded in collecting as many as three hundred and ninety-four recorded cases. These statistics are nearly complete, and whatever may be objected to statistical arguments, it is unquestionably true that statistics of this kind are but accumulated experience, and that in this way are we best taught. *Experientia docet.*

This great experience has been applied by Dr. Ashhurst with remarkable ability and success in setting forth the nature, causes, pathological conditions, and the physical and rational symptoms of these injuries, their prognosis, and the results of different modes of treatment.

As a general rule, and indeed so far as was practicable or advisable, this has been done by means of tables, the construction of which must have demanded great labour. For treatment, which the author desired particularly to elucidate, four tables are given; the first gives a view of the treatment employed; the second, an analysis of the nature of the injuries, as regards results; the third, an analysis of the results, as regards the treatment employed; and the fourth, a comparison of the results of various modes of treatment for each region.

It is thus clearly manifest that the mortality in these injuries has been almost three times as great when general treatment only has been practised, as when attempts at reduction were made, and moreover the final result when the patient survived was less satisfactory. After resection, the proportion of deaths was nearly six per centum greater than when general treatment was adopted, and in those cases that survived, the proportion of recoveries was far less—by recovery meaning that the patient was sufficiently restored to pursue some occupation. In fact, there is not, so far, one well-authenticated instance of recovery after spinal resection.

The following are the conclusions which Dr. Ashhurst believes justifiable from the facts brought forward. We agree with him in every one, except that in the third we would add, "and paraplegia exists," to "one or more vertebræ have been displaced."

"1. Injuries of the spine are not nearly so fatal as is generally supposed, and they have been, not unfrequently, completely recovered from.

"2. By watching carefully the symptoms and knowing the lesions which they indicate, the patient's progress towards health or death can be pretty accurately foreseen in most cases.

"3. Whenever there is reason to believe that one or more vertebræ have been displaced, extension should be employed: temporary, if that be sufficient, if not, continuous.

"4. In no case do resection or trephining offer a reasonable prospect of improving the patient's condition, but, on the contrary, there is reason to fear that they would increase the chances of a fatal termination.

"5. Those cases of spinal injury which are not adapted for the employment of extension, should be treated in accordance with ordinary rational and physiological principles.

"6. No new mode of treatment is entitled to adoption in a class of injuries so serious as this, unless it can be shown by clinical experience that it is at any rate *not less successful* than the modes commended to us alike by reason and long experience."

All the cases collected by Dr. Ashhurst he has arranged in tabular form in an appendix, under the different headings of Age, Occupation, &c.; Mode of Injury; Description of Injury; Progress of Case, etc.; Time under Observation; Result; Remarks; Autopsy, etc.; Author; and Reference. This table is a monument of surgical research, and will prove of invaluable assistance to all future investigators in this not too well-known region of surgery. This small volume—*non multa, sed multum*—is very neatly printed. W. F. A.

ART. XXVII.—*Inhalations in the Treatment of Diseases of the Respiratory Passages, particularly as effected by the Use of Atomized Fluids.* By J. M. DA COSTA, M. D., Physician to the Pennsylvania Hospital, &c. &c. 12mo. pp. 86. Philadelphia: J. B. Lippincott & Co., 1867.

THIS volume is very interesting, containing as it does the expression of the personal experience of a very careful observer—for such the author is—in regard to the therapeutic value of the inhalation of atomized fluids in certain diseases. The author began this inquiry, he states, "in the spirit simply of examining the value of the plan as a clinical problem," and has satisfied himself "of its use in some disorders, and its futility in others."

He treats in separate chapters: 1st. Of the history of inhalations and the apparatus employed. This chapter is copiously illustrated with figures of the various apparatus usually employed. 2d. The mode of administering inhalations. 3d. The penetrability of atomized fluids into the air-passages. 4th. Doses of medicine for inhalation. 5th. Therapeutic considerations.

The following are the conclusions of the author:—

"1. That inhalations by means of atomized fluids are an unquestionable addition to our therapeutic means; but that they are nothing but an addition, and not a substitute for all other treatment; that therefore their claims to be so considered are unfounded.

2. That in most acute diseases of the larynx, and still more so in acute disorders of the lungs, their value, save in so far as those of water, may tend to relieve the sense of distress, etc., and aid expectoration, is very doubtful; though in some acute affections, such as in œdema of the glottis and in croup, medicated inhalations have claims to consideration.

3. That in certain chronic morbid states of the larynx, particularly those of a catarrhal kind, and in chronic bronchitis, they have proved themselves of

value; but that they are useless or next to useless in ulcerated diseases of the larynx.

4. That in the earlier stages of phthisis they may be of decided advantage, and that at any stage they may efficiently aid in treating the symptoms of this malady; but that they are valueless to stay the disease after softening has fairly set in.

5. That their influence on such affections as hooping-cough and asthma is not satisfactorily proven.

6. That they furnish an unexpected augmentation of our resources in the treatment of pulmonary hemorrhage.

7. That the question in any disease of the respiratory tract is not whether the atomized fluids can reach the seat of the malady, but whether they can do so in sufficient quantity and in a manner to become available as a therapeutic means.

8. That in estimating the actions of inhalations of atomized fluids, we must accord due value to the ready absorption of many through the pulmonary structures, and guard against attributing to a local influence what may be due to the constitutional effect of the remedy.

9. That we cannot overlook the part the watery vapour plays when using atomized solutions.

10. That they require much care in their employ, and that particularly in acute affections we should consider whether, as they have to be used frequently to be of service, the patient's strength justifies the disturbance or the annoyance their frequent use may be.

11. That in any case, to be of service, the inhalations ought to be carried on as a treatment with a distinct object, and not intermittingly or spasmodically resorted to.

These conclusions and the remarks preceding them apply exclusively to the treatment of the diseases of the respiratory passages by atomized fluids, for though incidentally the inhalation of gases or vapours has been mentioned, it has purposely been no more than alluded to, since this subject has been long before the profession and has been often examined; whereas that of inhalations by means of atomized fluids is a novel one, and one which will require much unbiassed investigation to determine its true position."

Art. XXVIII.—*Education of the Imbecile.*

Fourteenth Annual Report of the Pennsylvania Training School for Feeble-Minded Children for 1866. 8vo. pp. 30. Philadelphia, 1867.

Fifteenth Annual Report of the New York Asylum for Idiots. Transmitted to the Legislature March 9, 1866. 8vo. pp. 70. Albany, 1866.

Among the various benevolent institutions which have been organized during the present century, there are none which present stronger claims to our approval than those which have for their object the education of feeble-minded children, and the amelioration of their condition generally.

The considerable percentage of this unfortunate class who, through the training to which they have been subjected in the institutions referred to, have been so far strengthened in mental power as to be able to assume a respectable position in society, and support themselves by their own industry, is of itself sufficient to press upon our attention the asylums and schools for the imbecile. As schools, none others are so well adapted to help the sluggish and clouded reason to the rudiments of English education, to correct perverted morals and disordered fancies, and train the feeble-minded to habits of virtue and usefulness. Even in those cases in which any useful amount of education is found to be impracticable, as asylums for these irreclaimable idiots, the institutions under consideration are valuable in several points of view. By relieving the mother of the care of her helpless, idiotic child, the energies of her mind and body can be the more fully directed to the proper training and education of her other children, while, at the same time, from the community is removed the presence of individuals who, if not actually dangerous, have often a pernicious influence.

"A very obvious and important reason for the removal of the lower class of idiots or imbeciles from their homes"—we use the language of the Pennsylvania report—"grows out of that principle of imitativeness, by which the similarity of the children of the same family increases the liability to a dangerous imitation or absorption of the frail one, until deterioration is marked upon the natures of all."

The pupils of the Pennsylvania institution are classified according to their dependence, or the degree to which they may arrive in self-support. Adventitious disease or accident may disappoint the hope formed in some cases, while individuals classed as hopelessly dependent, will occasionally arouse from their lethargy, and gain a foothold in a higher grade.

In two classes all the pupils are embraced, 1st. The hopelessly and totally dependent, earning nothing, many of them incapable of attention to their personal wants. 2d. Such as, under advantageous circumstances, may be advanced from varying degrees of dependence to partial, or in some few cases, to entire self support. The second class is divisible into three grades. *a.* Children possessing peculiarities of mind, or deficiency of intellect, disqualifying them for ordinary schools. Simpletons, as they are often called. *b.* Children possessing peculiarities of mind, or deficiency of intellect, accompanied with super-excitement of nervous system and enfeebled *morale.* *c.* Children possessing peculiarities of intellect, complicated with remediable epilepsy.

It has been considered that for the epileptic-imbecile there is no relief. This later experience has shown to be not true. Seguin cites a case of a profound idiocy, complicated with epilepsy, in which the motor disorders and nervous irritability were so regulated by sharp training, that in the sixth month the daily attacks of epilepsy entirely ceased, and the patient from *idiot* became *imbecile.* Several cases of corresponding improvement occurred in the Pennsylvania institution. In the report from the latter it is remarked that there is no positive objection to the admission of epileptics into the institution, on the ground of danger of their contact with the children free from the disease. Only one case of "simulated epilepsy" was met with, and the artifice was so flimsy that it was readily detected, and a proper course of discipline at once corrected the imitator.

In the report from the Pennsylvania institution is the description of a class of children, including many who, when placed under firm control, and a kind, but judicious and steady discipline, are capable of a reform sufficiently complete to render them useful and even exemplary, members of the community. In the children referred to there is a condition of the nervous system which, if not early recognized by parents, and skilfully treated by a wise domestic discipline, will reduce the possessor to imbecility, or render him a moral scourge in the community. Indeed, there are reasons for believing that some cases now remanded to refuges and prisons as criminals, are fitter subjects for the asylums and training-schools instituted for the feeble-minded, being the victims of a low brain organization, and deranged by inheritance. D. F. C.

ART. XXIX.—*The Principles of Biology.* By HERBERT SPENCER, author of "The Principles of Psychology," "First Principles," "Illustrations of Progress," and other works. Vol. I. New York: D. Appleton & Co., 1866.

THE author of this work, in our estimation, is one of the most erudite, philosophical, and profound thinkers and writers of the day. In the publication before us he is cultivating a field quite different from those which have rendered him eminent. The manner in which the subject is discussed is particularly attractive to our profession, evincing as it does a thorough knowledge of the general principles of the vital organization and functional operations of both animal and vegetable life. The aim of the work, of which the present is the first volume, to be followed by another, is to set forth the general truths of biology, as illustrative of and as interpreted by the laws of evolution; the special facts being introduced only so far as is needful for the elucidation of the general truths. In the preface to the American edition, he renders thanks to Prof. Huxley and Dr. Hooker for the supply of information where his own was deficient, though it is very manifest that the general principles and theories enunciated by him are the fruits of his own profound reflections and study.

In Part First, relating to the *Data of Biology*, which embraces an account of the elementary matters of which living structures are composed, and the action and reaction of forces, also of the correspondence between life and its circumstances, and the *Scope of Biology*, the student of nature will find a most elaborate and interesting exposition of the principles governing those most mysterious of the products of creation, *life* and *growth*.

The chapter on the "Proximate Definition of Life" is a most ingenious attempt to answer that most abstruse question, What is life? with acute and philosophical criticisms upon the efforts of other authors to define its meaning.

In treating of the "Scope of Biology," the extent and nature of the subject-matter is divided thus:—

1. An account of structural phenomena presented by organisms. And this subdivides into—

a. The structural phenomena presented by individual organisms.

b. The structural phenomena presented by successions of organisms.

2. An account of the functional phenomena which organisms present. And this, too, admits of subdivisions into—

a. The functional phenomena of individual organisms.

b. The functional phenomena of succession of organisms.

3. An account of the actions of structure on function, and the reactions of function on structure. And, like the others, this is divisible into—

a. The actions and reactions as exhibited in individual organisms.

b. The actions and reactions as exhibited in successions of organisms.

4. An account of the phenomena attending the production of succession of organisms; in other words, the phenomena of genesis.

In the chapter on "Growth," we have, in the first place, a lucid statement, illustrated by many details, of the wide difference between the various departments of the animal and vegetable kingdoms. Thus, "On looking at the organic kingdoms as a whole, we see that the limits between which growth ranges are very wide apart. At the one extreme we have monads so minute as to be rendered but imperfectly visible by microscopes of the highest power, and at the other extreme we have trees 300 feet high, and animals of 100 feet long. It is true that though in one sense this contrast may be legitimately drawn, yet in another sense it may not; since these largest organisms are made by the combination of units that are individually like the smallest."

After an elaborate discussion of the philosophy of these wide variations, comes the very interesting question, "But why should the growth of every organism be finally arrested? Though the rate of increase may, in each case, be necessarily restricted within a narrow range of variations—though the increment that is possible in a given time cannot exceed a certain amount; yet why should the increments decrease, and finally become insensible? Why should not all organisms, when supplied with sufficient material, continue to grow as long as they live? To find an answer to this question we must first revert to the nature and functions of organic matter."

The several conditions by which the phenomena of growth are governed are lucidly stated and discussed, as are also the numerous other inductions of this most wonderful of all the phenomena of nature.

The subject of "Development," which is often used as synonymous with growth, is herein regarded as *increase of structure*, and not *increase of bulk;* and "Evolution," comprehending growth as well as development, is treated upon occasions when both are implied. In this chapter may be found much that is useful to the profound physiologist, as well as to the general scholar.

The branches of the general subject under the heads of Function, Waste and

Repair, Adaptation, Individuality, Genesis, Heredity, and Variation, occupy several chapters consecutively, and are treated with originality and ability.

There is a species of fascination in the writings of Mr. Spencer, which compensates for the very close attention which is required by the depth of his researches.

We have no hesitation in commending the work to the consideration of even weak-minded superficial thinkers; the idea of its having a tendency to atheism, as has been charged upon it, being purely the fancy of some one unable to "look through nature up to nature's God." J. H. G.

ART. XXX.—*Atlas of Surgical and Topographical Anatomy.*—By B. J. BÉRAUD, Surgeon and Professor to the Maternity Hospital of Paris, &c. &c. Illustrated by one hundred plates, drawn from nature by M. BION. Translated by ROBERT THOMAS HULME, M. R. C. S., London. H. Baillière. Royal 8vo. 1866, parts 4, 5, 6 and 7. New York: Baillière Bros.

THESE numbers of Prof. Béraud's beautiful work contain two representations of the submaxillary region, showing the superficial and deep layers; two of the subhyoid region; two of the sterno-mastoid region; three of the region of the neck; one of the supra-clavicular region; a horizontal section of the neck on a level with the fourth cervical vertebra; two views of the dorsal region; one of the costal region; one of the mammary region; one of the region of the sternum; two of the mediastinum (anterior, and posterior); five of the thoracic region, with a transverse section of the chest on a level with the eighth vertebra; four of the lumbo-sacral region; four of the antero-lateral region of the abdomen; six of the cavity of the abdomen; one of the region of the internal iliac fossa; three of the inguino-crural region; eight of the perineal region in the male; two of the anal region; two of the scrotal region; two of the region of the pubis and of the penis, and also an antero-posterior section of the pelvis, including the urethra; section of the male pelvic region, and four views of the ano-perineal region in the female.

Much useful information in relation to pathology and operative surgery of all these regions is pointed out in connection with the explanations of the figures.

We must again strongly recommend this work to the attention of the Profession, not only on account of its beautiful execution, but for the very useful information it furnishes.

ART. XXXI.—*Das Vorkommen der Blattern in dem* Herzogthum Nassau *in den Jahren* 1818 *bis* 1862. *Nach den Akten bearbeitet von* Dr. ARNOLD VON FRANQUE. Privatdocent an der Universität München. Separat Abdruck aus den medicinischen Jahrbüchern für das Herzogthum Nassau, 22 Heft. 8vo. pp. 345. Wiesbaden, 1866.

The History of the Occurrences of Smallpox in the Duchy of Nassau during the years 1818 *until* 1862. *Prepared from Actual Observations by* ARNOLD VON FRANQUE, *Private Tutor in the University of München.* Printed from the Medical Annual of the Duchy of Nassau.

THE account given by the author of the work before us of the occurrences of smallpox in the several departments of the Duchy of Nassau, from 1818 to 1862, is replete with interest and highly instructive. It presents, it is true, no new views in respect to the pathology or treatment of the disease. Its chief interest consists in the positive testimony it furnishes of the entire efficiency of the vaccine infection, when the system is put completely under its influence, as a protection against an attack of smallpox, in nearly every case. That even in those where it fails to afford entire protection, it disarms the subsequent variolous attack, should one occur, of its severity, shortens its duration, and secures the patient's life, in nearly every instance, from all danger. We find that in many locations, upon the appearance of smallpox, a general vaccination was promptly resorted to in the case of the unprotected, and the further extension of the disease was arrested. In numerous instances, even after the unprotected had been fully exposed to the variolous poison, vaccination either prevented the occurrence in them of an attack of smallpox, or so modified the character of the attack as to deprive it of all malignancy and danger.

By the observations detailed in the work before us is fully sustained the importance of a general plan of revaccination being adopted in locations where the variola makes its appearance. This determines the efficacy of the previous vaccination, and furnishes a test, in those cases in which from idiosyncrasy of constitution there is an insusceptibility to the action of the vaccine virus, or in which its prophylactic powers diminish or become lost with the lapse of time. And in this manner rendering cases of varioloid less liable to occur during the prevalence of smallpox as an endemic or epidemic.

Facts are also deduced to show the deterioration which vaccine virus undergoes after it has passed through, successively, the bodies of a large number of human beings, and the propriety of resorting to the cow, at short intervals, for a supply of that which is fresh and more active. D. F. C.

ART. XXXII.—*The Renewal of Life. Lectures, chiefly Clinical.* By THOMAS KING CHAMBERS, M. P., Honorary Physician to the H. S. M. the Prince of Wales, and Lecturer on the Practice of Medicine at St. Mary's Hospital, &c. &c. Second American from the fourth London edition. 8vo. pp. 646. Philadelphia: Lindsay & Blakiston, 1866.

ON the first appearance of this work, it was fully reviewed in this Journal, (No. for April, 1863), and it was again noticed on the publication of the third edition (No. for July, 1865). In the present edition the author has thoroughly revised the previous one, without, however, making any additions except the very useful one of an index. We cordially recommend Dr. Chambers' lectures to the attention of the profession, being persuaded that they are calculated to awaken inquiry in the right direction, and to afford useful instruction.

ART. XXXIII.—*Erkennung und Behandlung der Prostata-Krankheiten.* Von HENRY THOMPSON. Arzt am Londoner Universitäts-Hospitale, etc. Autorisirte Deutsche Ausgabe. 8vo. pp. 255. Erlangen, 1867.

On the Nature and Treatment of the Diseases of the Prostate. By HENRY THOMPSON, Physician to the London University Hospital, etc. Authorized German edition.

THE excellence of Mr. Thompson's monograph on the pathology and treatment of the several morbid conditions of the prostate gland, induced Dr. Theile, of Weimar, to undertake its translation into German, in order that the practitioners of his native land should have ready access to the highly practical teachings of the author. The translation of Dr. Theile presents a very accurate rendering of the text of the original, without note or commentary. The only changes which occur have been sanctioned by the author. They consist, principally, in the arrangement into ten sections of the several subjects included under the head of "Pathology of the Diseased Conditions of the Prostate." which, in the original, have devoted to them seventeen separate chapters. The number of the illustrations in the original have been reduced also, by leaving out such of them as, in the estimation of Dr. Theile, throw but little light upon the author's meaning. D. F. C.

ART. XXXIV.—*An Index of Diseases and their Treatment.* By THOMAS HAWKES TANNER, M. D., F. L. S., etc. 8vo. pp. 397. Philadelphia: Lindsay & Blakiston, 1867.

THIS index, we are told, was not prepared for the use of the student to instruct him in the nature of "the tools with which he will have to work, and the best mode of employing them." For these the student must seek in other treatises. The work has been prepared solely for the instruction of the practising physician, who, having employed his customary weapons against disease, finds himself baffled.

The physician is to be pitied, but still more the patients of that physician who is so deficient in medical knowledge as to be forced, in his hour of need, to resort for information on any subject connected with the theory or the practice of medicine to a work like the one before us; a work from which, because of the mere outline character of its teachings it is admitted the student would not be able to learn how to distinguish and to manage therapeutically the ailments with which he would be called upon to deal every day at the termination of his novitiate.

All the positive information this "Index of Diseases" is adapted to convey, either to student or practitioner, could be as fully acquired by consulting a proper medical dictionary, such as that, for instance, of Dunglison. D. F. C.

ART. XXXV.—*Extracts from the Records of the Boston Society for Medical Improvement, with Papers read before the Society.* Published in the Boston Medical and Surgical Journal. By the Secretaries of the Society, FRANCIS MINOT, M. D., and CHARLES HOMANS, M. D. Vol. V. 8vo. pp. 559. Boston, 1867.

THE volume before us shows very clearly that the Society from whose records it is made up is, in strict parlance, a working one. The members are manifestly earnest in their desire to contribute to the general fund of medical knowledge whatever facts their respective fields of observation may present, calculated to throw light upon the etiology, pathology, or treatment of disease, or the true character and management of surgical maladies and accidents.

The collection of facts embraced in the volume under notice presents much to interest and instruct. Though, in many instances, their record as isolated observations, collected within a limited and special field, may render them of little value so far as they are calculated to add directly to our medical knowledge, or to increase our professional skill; yet, when they are taken in connection, and carefully collated with other facts from other sources having reference to the same subject, they become of very great value by aiding to establish or refute the views that have been adopted in reference to the nature, course, causation, and management of particular diseases or classes of disease.

Several of the papers included in the "Supplement" to the Extracts are especially interesting, treating, as they do, somewhat in extenso, important points in pathology and practice.

An analysis of the volume would occupy too much space, in consequence of the large number and variety of its contents, and the conciseness with which, in the majority of cases, they are treated. It is to be recollected, also, that they have all appeared in the pages of one of our esteemed contemporaries, to which access can readily be obtained. D. F. C.